Monday January 6, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 1/03): 45,856 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $32-$43 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Approximate change from previous week $-4.0 per MWh
- Petroleum, West Texas Intermediate: $33.08 per barrel (year ago: $19.08)
- Approximate change from last week: $1.50 per barrel
- Seattle gasoline price (1/06) $1.370 per gallon (year ago $1.248)
- Natural gas, Sumas Hub: $4.12 per million British Thermal Units (year ago $2.06)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Tacoma area residents will see electric rate increase (Tacoma News Tribune, Jan. 3)
  - Becalmed (ConWeb, Dec. 20)

4. River and Snowpack Information (Updated Dec. 17, 2002)

- Observed November stream flow at The Dalles: 62.5% of average
- Observed November precipitation above the Dalles: 57% of average

5. Energy Conservation Achievement (Updated Dec. 10, 2002)

- **State Agencies:** From January to October 2002 electrical usage was 7.7 % less and natural gas usage was 5.6% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
  - California (export) 1597 MW
  - Canada (import) 653 MW
  - Net power: (export) 944 MW

Tacoma, Wash.-Area Customers Will See Electric Rate Increase

The News Tribune, Tacoma, Wash. - *January 3, 2003,* Al Gibbs

About 200,000 Puget Sound Energy customers in the South Sound will see their electric bills rise by about a dollar a month within the next few weeks.

Puget, along with Avista -- the former Washington Water Power of Spokane -- and PacifiCorp of Portland want to reduce a credit that customers now receive in order to help the Bonneville Power Administration out of its current financial problems.

Essentially, the program will save Bonneville $55 million by 2006. The money will be repaid to the three investor-owned utilities with interest between 2007 and 2011, said BPA spokesman Ed Mosey.

"We're cutting costs and looking under every stone to avoid a rate increase this spring," he added.

Avista already has applied to the Washington Utilities and Transportation Commission for permission to impose what amounts to a slight rate hike beginning Feb. 1.

Puget hasn't yet finished details of its case, but intends to file a similar plan within the next week, according to Puget spokesman Roger Thompson.

The change "will be minimal, not too far from Avista," he said.

The commission is expected to routinely recommend approval for the change.

The so-called residential and small-farm exchange credit Puget customers receive is a creation of the Northwest Power Act of 1980, in which investor-owned utility customers were compensated with money for their share of the benefits of the Columbia River's hydroelectric dams owned by the federal government.

The benefits come to customers in the form of credits on their monthly bills, rather than as low-cost electrons from the dams, which public utilities such as Tacoma Power receive.

Puget and others receive about 1.8 cents per kilowatt-hour, which reduces consumers' bills to about 5.8 cents per kilowatt-hour.

An average home uses about 1,000 kilowatt-hours in a typical month.

In the latest contract, Puget was to have received about $200 million over five years, Mosey said.

But Bonneville identified about $1 billion in cuts it needed to make to squeeze by financially and continue making payments to the U.S. Treasury. Those payments go toward reducing the federal power marketing agency's debt for the costs of the dams.

BPA, Mosey said, has identified about $1 billion in savings and potential savings, but still only has a 50-50 chance of making the payments without raising rates.

"With the weather as bad as it is, the possibility (of another rate increase) is very, very high," Mosey said. "We're woefully short on snowpack," where most of the water that runs hydro dams comes from.

Although heavy rains have hammered the lowlands lately, that water runs off almost immediately.

Mountain snow, on the other hand, builds up during winter, then melts into mountain streams and eventually flows into the Columbia Basin in summer months. Snowpack is 22 percent below normal.

Bonneville is expected to make its next rate adjustment in April.

It is unknown when the state commission will consider the exchange deal.

Becalmed

Proposed Northwest Wind Turbine Plant 'On Hold,' Vestas Announces

A proposed wind turbine manufacturing plant in the Pacific Northwest is officially becalmed.

Vestas Wind Systems A/S announced Nov. 26 that its investment plans for a Northwest manufacturing facility are "on hold." A company news release did not elaborate, although it noted plans for reduced capital spending in 2003 amid lowered expectations for the U.S. wind market. Con.WEB could not reach Vestas officials for comment.

The prospective factory and its many hundreds of jobs were touted just nine months ago as a huge clean energy economic development coup for Portland, and a sign of confidence in wind's regional and national future by the world's leading turbine manufacturer. But the Vestas plant has grown increasingly uncertain with a slowdown in the U.S. wind market and congressional inaction on the future of the federal wind energy production tax credit.

'On Hold'

"Investments in manufacturing facilities in the USA ... have been put on hold," stated the Nov. 26 Vestas news release.

That differs substantially from an Aug. 22 company pronouncement that, "Activities concerning preparations for production facilities are still ongoing in the Portland area. Final location and timing for establishment is related to a clarification regarding extension of the PTC scheme."

A Vestas official in Portland told *Con.WEB* in late September that her firm was still considering a Northwest plant, and that the list of potential sites had expanded from Portland (the original pick) to Vancouver and Longview in Washington. "We're anxiously awaiting in Congress action on the production tax credit," said human resources vice president Jo Anne Firestone of Vestas-American Wind Technology, a Vestas subsidiary. "Once that comes through we'll look at the feasibility of where we need to locate." An extension of the current 1.8 cents per kilowatt-hour credit failed to materialize this fall, and thus it is still scheduled to expire at year-end 2003.

VAWT moved its corporate offices from Palm Springs, CA to Portland, and as of late September employed more than 100 people.

The manufacturing plant at full production would employ more than 800 people, according to Firestone. Vestas' initial announcement in April called for a 227,000-square-foot plant designed to assemble nacelles, produce blades and make towers, on an estimated investment of $35 million in production equipment. The company at the time anticipated opening the plant in summer 2003 and reaching full capacity by early 2004.

Vestas Projections

Vestas' Nov. 26 news release indicated the PTC could be extended in March or April of 2003, although "it will most likely not happen until October/November 2003. Therefore, the expectations for order intake for the American market this year have been reduced." The Denmark-based firm forecasts gross revenues of about 1.3 billion Euros in 2002, down from prior projections of 1.4 billion to 1.5 billion Euros. It expects 2003 revenues to grow to 1.7 billion to 1.8 billion Euros, lower than earlier projections of 2.1 billion to 2.2 billion Euros. (A euro roughly equals a dollar under current exchange rates.)

The company characterized non-U.S. wind market developments as "positive as expected" for the second half of 2002, particularly in European countries including Germany, Italy, United Kingdom, Ireland and the Netherlands.

"Vestas' expectations for the world market in 2004 and onwards are very much related to the American market," the news release said. "In case of an early extension of the PTC in 2003, the expectations for the American market in 2004 and onwards are positive. In case of a late extension of the PTC in 2003, the expectations for the American market in 2004 are lower, however, growth is expected again in 2005 and 2006."

Vestas in early December announced layoffs of 533 people from its Danish facilities.

Executive director Randall Swisher of the American Wind Energy Association called Vestas' recent announcements "unfortunate, but reflecting the hard realities of the wind business in the U.S. today. The U.S. independent power market is in turmoil at the moment, with many companies slashing plans to build new power plants, and that certainly has not helped matters," Swisher said in AWEA's *Wind Energy Weekly*. "At the same time, this news underlines the urgent need for Congress to act on an extension of the production tax credit and to put policies in place that will promote the sustained, orderly development of wind and other renewable energy technologies, instead of the roller-coaster, off-again, on-again situation we have at present."

Tuesday January 14, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 1/13): 45,958 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $35-$41 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Approximate change from previous week $+2.0 per MWh
- Petroleum, West Texas Intermediate: $32.26 per barrel (year ago: $19.08)
- Approximate change from last week: $-0.82 per barrel
- Seattle gasoline price (1/06) $1.370 per gallon (year ago $1.248)
- Natural gas, Sumas Hub: $4.12 per million British Thermal Units (year ago $2.06)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - US FERC gives access to Enron evidence (Reuters, Jan. 13)
  - Large wind farm planned near Prosser (KVEW.TV Kennewick, Jan 10)

4. River and Snowpack Information (Updated Jan. 13, 2002)

- Observed December stream flow at The Dalles: 59.5% of average
- Observed December precipitation above the Dalles: 102% of average
- Observed 2003 snow pack as of Jan. 9: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
  - California (exported to) 1597 MW
  - Canada (imported from) 653 MW
  - Net power export: 944 MW

US FERC gives California access to Enron evidence

Reuters - January 13, 2003

The Federal Energy Regulatory Commission (FERC), reversing an earlier policy, has decided to provide California officials with access to some evidence from the agency's probe of whether Enron Corp.((ENRNQ.PK)) manipulated the state's electricity market.

The agency will use the new information to determine if it should act on California's demand for $9 billion in refunds from alleged overcharges by Enron and other suppliers to the state's electricity market in 2000-01. So far, a FERC judge has tentatively approved $1.8 billion in refunds.

The agency had previously declined to provide evidence its staff had gathered in its probe of so-called "wash trades," in which some power traders engaged in simultaneous buying and selling electricity with the same counterparty. Wash trades allowed companies to inflate trading volumes and possibly raise prices to electricity consumers.

"The commission will permit California parties to seek through data requests served on the sellers certain documents provided to the commission and its staff" in its Enron investigation, said the order, signed by three commissioners and issued late on Friday.

The agency said it will not allow the release of transcripts of depositions conducted by FERC staff because it would have a "chilling effect" on its ongoing investigation.

FERC in November allowed 100 extra days for all parties in the case to submit new evidence on whether California's energy market was manipulated. The extended period ends Feb. 28.

In November, the agency said that the results of its Enron staff investigation would not be subject to discovery in the 100-day proceeding. The recent order reverses in part the agency's previous stance on its investigation materials.

Philip Cabot, a lawyer for Tacoma, Washington, in litigation against Enron at FERC, dismissed the move as "too little too late" given the short time left for discovery.

"The (FERC) staff is trying to make itself look good on the appellate record," he said, referring to the likelihood that any FERC decision on California refunds will be appealed to a federal court.

FERC Chairman Pat Wood has said he wants to wrap up the agency's California-related inquiries by the end of March.

The cases are pending before FERC in docket PA02-2 and EL00-95.

Large Wind Farm Planned Near Prosser

Turbines would generate nearly 500 mega-watts of power

By Lindsey Roberts

Prosser could be the next site for a large wind farm. The wind farm would be similar to the Nine Canyon Wind farm that's gone up south of Kennewick. Washington Winds Incorporated wants to build a nearly 500 mega-watt operation eight miles north of Prosser.

Bonneville Power Administration has expressed interest in buying up to 50 mega-watts of power. Wind farms must sell their power before starting construction. This project now goes to public comment. Benton County expects to start meetings within the next month.

Tuesday January 21, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 1/20): 45,173 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $36.7-$42.7 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Approximate change from previous week $+1.0 per MWh
- Petroleum, West Texas Intermediate: $33.91 per barrel (year ago: $19.08)
- Approximate change from last week: $+1.65 per barrel
- Seattle gasoline price (1/20) $1.408 per gallon (year ago $1.254)
- Natural gas, Sumas Hub: $4.18 per million British Thermal Units (year ago $2.06)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - US is pressuring industries to cut greenhouse gases (New York Times, Jan. 20)
  -

4. River and Snowpack Information (Updated Jan. 13, 2002)

- Observed December stream flow at The Dalles: 59.5% of average
- Observed December precipitation above the Dalles: 102% of average
- Observed 2003 snow pack as of Jan. 9: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
  - California (exported to) 1597 MW
  - Canada (imported from) 653 MW
  - Net power export: 944 MW

U.S. Is Pressuring Industries to Cut Greenhouse Gases

By ANDREW C. REVKIN

In an aggressive effort to show that President Bush's voluntary climate strategy can work, senior administration officials are traveling the country collecting written promises from industries to curb emissions of gases linked to global warming.

White House officials, insisting on concrete commitments measured in tons of gases, have rejected written offers from some industry groups to take nonspecific actions, several industry officials said. The administration and industry leaders plan to unveil a broad array of pledges at the White House on Feb. 6.

This is the administration's latest and most intensive effort to demonstrate that voluntarily controlling emissions can make mandatory reductions unnecessary. Mr. Bush has said such reductions will harm the economy. The effort has no teeth, officials and company representatives say, other than the growing realization in industry that without measurable success from voluntary reductions, it will become ever harder in coming years to stave off legislation requiring companies to act. Senators of both parties introduced such legislation in Congress this month, and states are acting on their own as well.

The administration's intent, once all the industries' commitments are tallied, is to meet Mr. Bush's stated goal: an 18 percent reduction, by 2012, in emissions of greenhouse gases for each unit of gross domestic product. Overall emissions would continue to grow, but more slowly.

Some company officials and other opponents of regulation have criticized the administration's effort as a mandatory program disguised as a voluntary one.

"This is meant to give the impression that the administration is doing something to control CO2 emissions," said Myron Ebell, a climate policy expert at the Competitive Enterprise Institute, which promotes free markets and limited government. "The danger is that they could easily get pushed from that position into actually regulating emissions, which would be very expensive, pointless."

At the same time, many scientists, environmental groups and political foes of Mr. Bush have said his target is so modest that no matter what industries do to achieve it, it will not help stem climate change. Most other industrialized countries have chosen to pursue binding reductions in emissions through the Kyoto Protocol, the climate treaty Mr. Bush rejected shortly after taking office.

"Over a decade ago, the United States committed to voluntary greenhouse gas reductions, and emissions have continued to rise," said Elizabeth Cook, an expert on corporate environmental policies at the World Resources Institute.

Citing an expanding body of research pointing to rising concentrations of carbon dioxide and other greenhouse gases as a cause of global warming, she and other critics said more action was needed.

White House officials said the new effort was just the beginning of a protracted campaign for voluntary reductions. "We're not declaring victory here and going home," an administration official said. "It'll be an ongoing thing from here."

Many big companies, expecting that regulation of greenhouse gases is inevitable, have already moved independently to set up voluntary caps and trading schemes in which companies that aggressively cut their emissions acquire pollution credits they can sell to other companies. The list of such companies includes most of the country's biggest energy, mineral and industrial concerns,

including DuPont, Motorola, Waste Management Inc. and American Electric Power, a Midwestern utility that is the largest emitter of greenhouse gases in the Western Hemisphere.

The newest effort began on Thursday, with the start of the Chicago Climate Exchange, under which big manufacturers and energy companies agreed to cut emissions and trade credits with one another.

As they considered the administration's initiative, industries at first resisted committing themselves to specific targets.

The American Petroleum Institute, the oil industry's principal trade group, initially offered the White House a proposal for efforts on emissions, but without a specific timetable or targets. It cited the difficulty of getting all its members to agree on a single plan — and of measuring emissions from every facet of far-flung operations.

That was rejected, but after several rounds of discussions with the administration, the institute — like other industry groups — agreed to emissions changes that would mesh with Mr. Bush's 2012 goal.

"Oil, gas and other industries have all had significant discussions in trying to achieve the types of commitments the administration is desiring," said Robert L. Greco III, a senior manager at the institute. "Industry is committed to supporting this type of approach and is willing to step up to further the objective of the president's program."

Trade groups for companies pumping oil, mining coal, making cars, synthesizing plastics, smelting metals and manufacturing microchips have been recruited and have scrambled to settle on various targets for reducing or in some cases eliminating emissions.

These include some of the most influential voices for industry in Washington, the American Chemistry Council, National Mining Association, the Alliance of Automobile Manufacturers and the Edison Electric Institute, which represents power-plant owners.

Talks are still under way, and agreements could change, but some details are starting to emerge.

Under the program, magnesium producers have agreed to eliminate releases of a potent heat-trapping greenhouse gas, sulfur hexafluoride, by 2010. The gas is very rare, but each molecule has 23,600 times as much heat-trapping potential as a molecule of carbon dioxide.

Chip makers have said that by 2010 they will cut emissions of perfluorocarbons, another potent warming gas, 10 percent below 1995 levels.

Among other actions, all the major oil companies have agreed to scour pipelines and oil fields for leaking methane, another powerful heat-trapping gas. Coal companies have promised to expand efforts to capture methane and other greenhouse gases escaping from mines.

Individual companies are being asked to set more general goals.

Under a simultaneous initiative, also to begin on Feb. 6, the Business Roundtable, which represents 140 of the country's biggest companies, is working with the White House to obtain commitments from its members to start assessing their activities and considering ways to reduce their impact on climate.

Although that effort is theoretically voluntary, the Business Roundtable has already promised to deliver 100 percent of its members.

Some industry officials have quietly objected to the heavy pressure to sign on.

On Jan. 8, James L. Connaughton, chairman of the White House Council on Environmental Quality, addressed a private gathering of leaders of electric utilities at the Ritz Carlton in Naples, Fla. Several executives who were there said his insistence on substantive commitments prompted some of them to label the effort the "mandatory voluntary climate program."

The administration's push has intensified as criticisms of its cautious climate policies have increased, and more aggressive alternatives have been proposed.

On the day Mr. Connaughton spoke in Florida, Senator John McCain, Republican of Arizona, and Senator Joseph I. Lieberman, Democrat of Connecticut, unveiled a bill that would require restrictions on emissions. California and New York are moving toward restricting greenhouse gases from vehicles.

Administration officials acknowledge that they are trying to tread a fine line. They do not want to alienate voters in states like West Virginia, where the economy revolves around coal, a major source of carbon dioxide, but they do want to appease moderates, particularly women, for whom global warming is a growing concern.

But in seeking that path, many experts and lobbyists for different factions said, the administration could end up satisfying no one and doing little to solve the problem.

Many people involved in the White House effort, including government officials and executives from industries, say it is unlikely to lead to improvements much beyond those already taking place as the economy shifts from old-style manufacturing and businesses grow less wasteful.

And the effort, aimed mainly at manufacturing, encompasses only a small portion of America's greenhouse-gas emissions.

For example, while the auto industry is agreeing to curb gases from its assembly lines, it has not been asked — nor has it promised — to reduce gases from the tailpipes of the cars and trucks it builds.

Nevertheless, Ms. Cook, at the World Resources Institute, said there was some value in finally pushing a broad array of industries to start looking for ways to reduce their impact on climate. Once they have committed to change, she said, it will be hard for them to reverse course.

Tuesday January 28, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 1/27): 42,133 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $35.7-$43.6 per MWh
- Approximate change from previous week $0 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $32.28 per barrel (year ago: $18.01)
- Approximate change from last week: $-1.63 per barrel
- Seattle gasoline price (1/27) $1.439 per gallon (year ago $1.247)
- Natural gas, Sumas Hub: $5.24 per million British Thermal Units (year ago $2.06)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Hybrid cars are catching on (New York Times, Jan. 27)
  - US wind industry turns in another solid year of growth (Transmission and Distribution World, Jan. 24)

4. River and Snowpack Information (Updated Jan. 27, 2002)

- Observed January stream flow at The Dalles: 69% of average
- Observed January precipitation above the Dalles: 63% of average
- Observed 2003 snow pack as of Jan. 20: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
  - California (exported to) 1597 MW
  - Canada (imported from) 653 MW
  - Net power export: 944 MW

Hybrid Cars Are Catching On

By DANNY HAKIM

DETROIT, Jan. 27 — Hybrids, vehicles that save gasoline by combining electric motors with internal combustion engines, are emerging as the first alternative-powered cars to show signs of catching on with automakers and some consumers since the automobile's early days.

Toyota and Honda are already selling tens of thousands of hybrids, and General Motors and Ford, worried about ceding another fast-moving market to the Japanese, have announced plans to join them. The hybrid's rise has been encouraged by pressure from environmentalists and regulators, particularly California rules curbing greenhouse gases and smog-forming pollutants.
"Hybrid technology is one that has great appeal because we don't have to really invent anything; we know they work," said William Clay Ford Jr., Ford's chairman, in a recent speech. "If these vehicles don't get customer acceptance, I really don't know what we do next."

A hybrid's battery is recharged by the internal combustion engine and by collecting energy when the car brakes. The battery powers an electric motor that supplements, or takes over for, the gasoline-powered engine. In the Honda Civic hybrid, an electric motor assists when the car is climbing hills or accelerating sharply. In the Toyota Prius, the electric motor takes over at low speeds. In both, the gas engine shuts off when the car stops.

Hybrids have until now been something of a curiosity and account for a small fraction of overall sales. Only three models — all small cars — are available, one from Toyota and two from Honda, and they cost a few thousand dollars more than conventional cars. About 150,000 have been sold worldwide since hybrids were introduced in the late 1990's, fewer than the number of vehicles typically produced by a single auto factory in a year.
But carmakers now appear ready for a much broader rollout. Earlier this month, at the North American International Auto Show here, G.M. — previously the industry's most vocal skeptic — publicly embraced the technology. The company said it would sell a hybrid version of its Saturn Vue sport utility vehicle in 2005 that would approach 40 miles a gallon in fuel economy, compared with mileage in the low 20's for current models. G.M. said it would offer vehicles with more limited forms of hybrid power, too, promising 10 to 15 percent improvements in fuel economy on four other models by 2007.

Also at the auto show, the annual beauty pageant where the industry trots out its latest designs and biggest pronouncements, Toyota said it would sell the first luxury hybrid, a Lexus sport utility vehicle, starting next year — part of a plan to sell 300,000 hybrids annually by mid-decade. Ford plans to sell what will probably be the first hybrid sport utility vehicle, a version of the Escape, at the end of this year, and showed off a new hybrid prototype called the Model U.

Even the Army, which pays as much as $400 a gallon in battlefield fuel costs, had a hybrid on display — a hulking diesel combat vehicle, built by G.M., that is one of several prototypes being considered for service within a few years, including hybrid Humvees.

"You run those things on battery power; there's no noise," said Maj. Gen. Ross Thompson III, the head of the army's Tank, Automotive and Armaments Command, explaining the appeal of hybrids

for the military. "For a reconnaissance mission, or if you want to not be noticed, you can use the batteries."
A century ago, in 1903, gasoline-powered Oldsmobiles shouldered past steam-powered Locomobiles to become America's top-selling brand. Never again would electric or steam cars rule the road. There is scant suggestion that hybrids may replace gasoline-powered cars in the same way. Among other things, two motors cost more than one.
But Stephen Girsky, an auto analyst at Morgan Stanley, predicts that hybrids could grow to 10 to 15 percent of American vehicle sales, which approached 17 million last year. Government incentives, gas prices and how much manufacturing costs can be reduced will be important factors, he said.
John Casesa, an analyst at Merrill Lynch, said that because the Japanese "view this as a core technology over the next decade," domestic automakers have to respond. "Inevitably, we're moving toward a future with higher fuel economy standards, risk to energy supplies and higher environmental consciousness," he said. "So there's a market pull here."

In addition to representing a response to the latest competitive threat from Japan, Detroit's hybrid plans are good for public relations, especially as hot-selling sport utility vehicles come under increasing criticism for how much gasoline they consume. A recent ad campaign by an evangelical group suggested that Jesus would find sport utilities morally unfit; another, orchestrated by Arianna Huffington, argued that these vehicles increased American reliance on oil from the Middle East.

But there remains considerable debate within the auto industry about whether hybrid technology is too costly to become universal — and whether its advantages are so modest that it represents a diversion from more worthy approaches to improving fuel economy.

"Right now," said Wolfgang Bernhard, chief operating officer of the Chrysler division of DaimlerChrysler, "everybody is jumping on the hybrid bandwagon and saying this is the most important thing and without it the world's going to end. It reminds me of the hype we had around e-business in the early 90's."

Daimler this year plans to sell a small number of hybrid Dodge Ram pickups tailored for contractors, who could use the trucks as mobile power generators. The company's German executives, though, prefer the updated diesel-engine vehicles already prevalent in Europe; diesels achieve 25 percent better mileage than comparable gasoline-powered cars. American environmentalists, worried about emissions of smog-forming pollutants, oppose a broad reintroduction of diesel-powered vehicles.

To Japanese-based carmakers, the choice is clear from an environmental standpoint. Hybrids are "the solution for today," said James E. Press, executive vice president of Toyota Motor Sales U.S.A.

"What's the cost of fuel?" he said. "It's not $1.80 a gallon. It's how much does a war in Iraq cost? How much does the fact you've got 75 years of this stuff left on the planet cost? And then what's the cost of pollution? At some point, the industry has to recognize it."

Last year, Toyota sold more than 20,000 of its Prius subcompacts, making Prius, which gets about 40 miles per gallon, the best-selling hybrid in the United States.

With a base price of $20,500, a Prius costs about $5,000 more than a Toyota Corolla. That is a considerable gap, though Prius buyers can take a $2,000 income tax deduction. Toyota says it now makes some profit on each Prius it sells, if the research-and-development costs are not factored in, but the company will not say how much less profitable hybrids are than its conventional vehicles.

Toyota executives insist that the cost differential can be brought down significantly. For example, Mr. Press said the electric motor in a sport utility vehicle could be configured to power the rear wheels, eliminating the need for, and cost of, a conventional four-wheel-drive system.

In addition, Congress has considered adding more tax benefits for buyers.

Rick Wagoner, G.M.'s chief executive, said such incentives, which could quickly accumulate into a considerable government subsidy, are critical to the future of hybrids, because G.M. does not intend to sell its hybrids at a loss.

"For this to go, it's a team sport," he said. "We're going to need the government in."

G.M.'s hybrid plans were promoted in full-page newspaper ads and greeted as something of a road-to-Damascus conversion. A Sierra Club statement likened the announcement to "Nixon going to China." Nicholas V. Scheele, Ford's chief operating officer, described himself as "baffled," noting that only recently G.M. had dismissed hybrids as too costly.

Lawrence D. Burns, G.M.'s vice president for research and development, attributed the change of heart to the early success of Toyota and Honda and "the uncertain future in 2005 and beyond with regulatory requirements and gasoline prices."

Robert A. Lutz, G.M.'s vice chairman for North American operations, was more blunt. "You just can't fly in the face of public opinion," he told The Detroit News. "It would be self-defeating to constantly say to ourselves, `It's not gonna work, it's not gonna work.' "

Since the days of Thomas A. Edison, the auto industry has been trying to make a credible alternative to the internal combustion engine. Edison himself was a pioneer of the battery-powered car, though he is said to have told a young Henry Ford that his idea for a gasoline engine sounded pretty good.

The first car bought by the government, during Theodore Roosevelt's administration, was a Stanley Steamer, a steam-powered car. In the 1950's, Chrysler was so sure that cars powered by jet engines would be the future that it built a small fleet of them. Today, the industry is convinced that future generations of automobiles will be propelled by hydrogen fuel cells, which generate electricity through a chemical reaction.

If debate continues on hybrids, some clarity is emerging on other alternative technologies. The future seems notably dim for battery powered cars, whose batteries do not last very long and take hours to recharge.

"At the moment I think it's being put to rest," said Fujio Cho, the president of Toyota, adding that his company is "hardly selling any."

Carlos Ghosn, chief executive of Nissan, agreed that battery-powered cars are "completely obsolete," though Nissan continues to lease battery-powered Altra station wagons to California utilities.

Then there is the fuel cell, for environmentalists and even many auto executives the nonpolluting ideal of alternative fuel technologies. Not only did fuel cells power the inside of lunar landers, they emitted water for astronauts to drink. But will they soon supplant the internal combustion engine?

"Today a fuel cell car probably costs about — I'm going to be optimistic — $700,000," Mr. Ghosn said. "We're far from sticker price, eh? We're going to have to get it down to $20,000, $30,000."

U.S. Wind Industry Turns in Another Solid Year of Growth

Transmission & Distribution World - *January 24, 2003*

The U.S. wind energy industry racked up a solid gain in 2002 even in the face of an overall retrenchment in the broader energy industry, stated the Washington, D.C.-based American Wind Energy Association (AWEA).

AWEA said total installed wind electric generating capacity expanded by nearly 10% during the year, with 410 megawatts (MW) of new equipment going into service (enough to meet the annual needs of approximately 120,000 average American homes). At year's end, it said, wind plants in 27 states across the country totaled 4,685 MW, enough to serve more than 1.3 million households.

Although the new additions made 2002 the fourth best year of all time, AWEA executive director Randall Swisher said, the total was down sharply from 2001, when a record 1,696 MW were installed. The lower total, he said, "underlines the vital importance of having a stable energy policy environment in which a new industry can grow in a healthy fashion."

Central to the industry's agenda in 2003, Swisher said, will be a proposed multi-year extension of the existing federal wind energy production tax credit (PTC), which is currently scheduled to expire Dec. 31, 2003: "Congress has allowed the PTC to expire twice before renewing it -- in 1999 and 2001 -- and each time the impact on our industry has been devastating."

An extension of the credit was included in both the House and Senate versions of last year's energy bill, which died when Congress could not reach final agreement before adjourning in December.

Highlights of the year's wind energy development, according to AWEA, included: The world's second-largest wind farm, the 263-MW Stateline project on the border between the states of Washington and Oregon, became the largest with the addition of another 37 MW, pushing it to 300 MW and surpassing the 278-MW King Mountain Wind Ranch in Texas. Both projects are owned by FPL Energy, a subsidiary of FPL Group and the nation's largest wind energy producer. The Stateline project uses 660-kW (kilowatt) Vestas turbines and generates enough electricity annually to serve approximately 70,000 homes. The first utility-scale wind project in West Virginia, the 66-MW Mountaineer Wind Energy Center on Backbone Mountain, went into service. The wind farm, developed by FPL Energy, consists of 44 1,500-kW (1.5-MW) NEG Micon turbines, and is the largest east of the Mississippi. Iowa, which ranks third nationally with 423 MW behind California (1822 MW) and Texas (1095 MW) in wind development, gained another large project, the 98-MW Hancock County Wind Energy Center. The project was developed by FPL Energy and uses 148 Vestas V47-600 kW turbines. A growing "green power" market in the eastern U.S., underlined by announcements by several universities of purchases of wind-generated electricity. Catholic University of America in Washington, D.C., topped the list in percentage terms, agreeing to buy wind power for 12% of its electricity needs.

Wind power's outlook for 2003 is clouded somewhat by an overall buildup of debt in the electric utility industry that has created financial problems expected to last well into 2004, AWEA said. The utility industry over-expanded in recent years, and financial investment in the sector has nose-dived.

"With the strong possibility of military action in the Middle East, we expect to see more turbulence in the energy market in the year ahead," Swisher said. "Extension of the PTC is urgently needed to provide planning stability for the growing number of companies -- manufacturers, project developers, generating companies, and investors -- in our industry."

AWEA had previously projected a record year with more than 2,000 MW in 2003, but given the growing market uncertainty, has scaled its forecast back to a range of 1,500 to 1,800 MW, Swisher said.

A state-by-state map of wind energy projects is available on AWEA's Web site at http://www.awea.org/projects/index.html.

Monday February 3, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 2/03): 44,402 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $37.65-$41.20 per MWh
- Approximate change from previous week $-.40 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $33.53 per barrel (year ago: $18.01)
- Approximate change from last week: $1.25 per barrel
- Seattle gasoline price (2/3) $1.482 per gallon (year ago $1.239)
- Natural gas, Sumas Hub: $4.69 per million British Thermal Units (year ago $2.07)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Day of fun with energy is costly for Reliant (Sac Bee, Feb. 02)
  - Columbia river forecast cut to 70 percent - NWRFC (Rueters Jan. 30)

4. River and Snowpack Information (Updated Feb. 3, 2003)

- Observed January stream flow at The Dalles: 82.7% of average
- Observed January precipitation above the Dalles: 95% of average
- Observed 2003 snow pack as of Jan. 20: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
  - California (exported to) 1597 MW
  - Canada (imported from) 653 MW
  - Net power export: 944 MW

Day of 'fun' with energy is costly for Reliant

The company will pay a record $13.8 million for gaming the state's power market, a fine some call far too low.

By Carrie Peyton Dahlberg -- Bee Staff Writer

Reliant Resources gleefully shut down power plants to drive up electricity prices and now will pay $13.8 million for a June 2000 episode that its own workers called "fu-un," according to federal regulators and documents released Friday.

The agreement with the Federal Energy Regulatory Commission was the largest settlement to date that FERC has approved for deliberately withholding electricity to manipulate power prices during California's energy crisis.

It was dismissed as ridiculously low by many California politicians, including Gov. Gray Davis, who called it "insulting."

State Sen. Debra Bowen, D-Marina del Rey, said the details of the two-day episode made "an absolute farce" of generators' long-standing claims that they were not holding back power to raise prices.

But Reliant, which owns a fleet of aging Southern California power plants, called the incident "an isolated situation" that did not reflect its operating standards. It pointed out that it brought the episode to FERC's attention itself, after conducting a records review ordered by the commission.

With FERC's investigation into Western markets still continuing, it is too soon to draw any conclusions about how widespread such tactics were or what generators ultimately will pay, said FERC commissioner Nora Mead Brownell.

"We need to keep this in focus. It's two days, one company, and a clear, clear record of inappropriate behavior," she said.

Brownell called Reliant's behavior so "blatant" that its details had to be unveiled publicly.

FERC did just that Friday afternoon, posting on its Web page transcripts of telephone conversations among Reliant traders and plant operators that captured their sheer joy at trying to move the state's power market -- and succeeding.

"We decided prices were too low on the daily market, so we shut down everything except Ormond," said one trader, identified only by his job function and a number.

"Excellent. Excellent," replied an operations manager. "That's sweet ... Isn't it fun when you can do things like that now?"

In another conversation, one trader recounted, "We literally shut everything off but Ormond. Everybody's like, 'You can't do that,' and we're like, 'Watch us.' And it worked."

"Did the market find out?" another trader asked.

"No, God, no," was the reply.

"That was fu-un!" one worker noted in yet another conversation.

The shutdowns, which would have been reported to the state grid operator but not publicly revealed under market rules at the time, occurred June 21 and June 22, 2000, a key time in the birth of the state's power crisis.

Prices began their upward spiral in May, and just a week before, a heat wave and local supply troubles triggered the first rolling blackouts in decades in the San Francisco Bay Area.

Statewide about that time, "roughly 8,000 to 10,000 megawatts disappeared from the Power Exchange market, virtually overnight," recalled Mike Florio, a consumer attorney who sits on the board of the Independent System Operator, which runs the power grid.

"The prices ratcheted up and never came back down ... it's a little hard to believe this happened for only two days," Florio said.

An unusually high number of maintenance problems were cited by generators for the rest of 2000 and into early 2001 as reasons why so many power plants were shut down, eventually triggering statewide rolling blackouts.

Industry officials blamed the breakdowns on aging plants that were run hard during early months of the crisis.

Reliant's June maneuvers did not imperil the grid, which was never close to blackouts on those days, said ISO spokeswoman Stephanie McCorkle. The ISO is still researching their effect on prices.

FERC concluded that all wholesale power buyers, including California's utilities, could have paid up to $13.8 million less for electricity on June 21 and June 22 if Reliant had not tried to manipulate prices. It ordered Reliant to repay the money to purchasers as soon as individual amounts owed could be calculated.

Pacific Gas and Electric Co. said it was a "substantial" purchaser on those days but declined further comment until it could study the decision.

SMUD officials said they couldn't immediately locate records, but that it was likely they made some small deals that would be eligible for payments from Reliant.

Along with ordering the repayments, the FERC settlement also requires Reliant to hire an independent engineering company to monitor all its shutdowns for the next two years and report back to federal regulators. It also contained clauses that could force Reliant to sell power to California buyers under some circumstances.

Reliant denied breaking any laws or regulations and said in a press release that its traders' actions "were not in keeping with how Reliant operates or the expected behavior of its employees."

It said it has taken steps to make sure such conduct is not repeated.

Reliant apparently wanted prices high in late June so it could boost its second-quarter earnings by stating a higher value for contracts later in the year, said Erik Saltmarsh, acting head of the state Electricity Oversight Board.

Such strategies were typical of high-level maneuvering in the state's complex power markets, when traders could lose money in the short run but benefit greatly over time, he said.

The settlement holds some shreds of hope for California, because it might bolster the state's case for seeking refunds back to May 2000 and could indicate that FERC might set more generous formulas for calculating the damage done by market tricks, Saltmarsh said.

"If FERC comes out with about 500 more of these, then we'll be getting somewhere," he added.

Columbia River hydro forecast cut to 70 pct--NWRFC

SAN FRANCISCO, Jan 30 (Reuters) -

The Northwest River Forecast Center (NWRFC) on Thursday again cut its forecast for the volume of water likely to flow through the region's giant hydroelectric facilities from January through July.

The Portland, Oregon-based agency, in its "early bird" forecast for February, reduced the amount of water expected to run through The Dalles dam to 70 percent of normal from Jan. 1 through July 31, down from 72 percent in its Jan. 16 report.

The Dalles is one of the best barometers for river flows in the Northwest, which generates about 75 percent of its power from the hydro electric projects along the Columbia River.

The agency cut its forecast for the April to September period at The Dalles to 71 percent from 72 percent in the previous report.

The outlook is the latest indication the region faces a drier than normal winter, a development that has already aroused local concerns over tight water and power supplies in the months ahead if more rain and snow do not fall soon.

The NWRFC forecast is watched closely by the energy industry to gauge how much water is available for hydroelectric power generation.

In its final forecast for the previous hydro season ended this past summer, the agency forecast runoff at The Dalles, the next-to-last dam on the Columbia River, at 96 percent of normal.

OTHER DAMS

At other dams, the NWRFC reduced runoff at Grand Coulee, the region's largest dam, to 75 percent of normal from Jan. 1 to July 31, down from 78 percent in the previous report.

The agency also trimmed its Grand Coulee runoff forecast to 76 percent of normal from 78 percent for the April to September period.

The NWRFC is scheduled to issue its official forecast for February on Feb. 10.

U.S. government forecasters in early January dimmed regional hopes for more rain and snow this winter with a report calling for the global weather anomaly El Nino to linger through April.

That is likely to mean more rain and snow in California but drier Northwest weather, according to the National Oceanic and Atmospheric Administration (NOAA), which issued the report.

U.S. energy analysts have also raised concerns about the impact of less hydropower supplies on Northwest utilities.

Insufficient water running through the region's dams would cut the amount of hydroelectricity produced, forcing regional utilities to make-up any shortfall by buying power in the more costly spot market.

Monday February 10, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 2/10): 45,443 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $37.75-$46.7 per MWh
- Approximate change from previous week $+3.0 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $35.12 per barrel (year ago: $20.40)
- Approximate change from last week: $1.50 per barrel
- Seattle gasoline price (2/7) $1.56 per gallon (year ago $1.23)
- Natural gas, Sumas Hub: $4.91 per million British Thermal Units (year ago $2.07)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - BPA warns power rates likely to rise (Rueters Feb. 7)

4. River and Snowpack Information (Updated Feb. 10, 2003)

- Observed February stream flow at The Dalles: 91.2% of average
- Observed January precipitation above the Dalles: 115% of average
- Observed 2003 snow pack as of Jan. 30: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Feb. 7)

- Federal reservoir system storage: 48% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Feb. 7)

- Average flow of power during the last 30 days
  - California (exported to) 1723 MW
  - Canada (exported from) 300 MW
  - Net power export: 2023 MW

BPA warns Northwest power rates likely to rise

Reuters - February 7, 2003

Bonneville Power Administration, the biggest power provider in the U.S. Northwest, warned on Friday it may have to raise wholesale power rates up to 15 percent in October due to low hydro power supplies and the agency's poor financial condition.

The lack of water running through the Northwest's elaborate dam system, which provides the region with about 75 percent of its power, will likely cut the amount of "surplus" power BPA was hoping to sell in wholesale energy market to boost its financial position.

BPA, which sells power to utilities and big industrial customers, said it plans to send a revised rates proposal to the federal government in March, with the new rates taking effect Oct. 1, if approved.

So-called "secondary," or surplus electricity accounts for about 25 percent of BPA's total power revenues.

But those revenues are not rising enough to offset expenses because of low power prices and fewer megawatts BPA can sell -- due to a dry winter that has cut hydroelectric generation.

"And even if we have the water, it appears the prices we receive for our secondary energy will be below initial projections for the remainder of the rate period," Paul Norman, a BPA Vice President, said.

"This provides us little opportunity to make up the shortfall through surplus power sales," he said.

In November, BPA warned its customers it was facing a $1.2 billion revenue shortfall over the current rate period ending September 2006. It also told customers in December that some type of rate increase could be in the offing.

Since then, BPA has been working with its customers to narrow the gap between revenues and expenses.

The BPA said it was still possible to reduce the proposed rate increase by finding additional cost cuts, saying it would be working with customers over the next several weeks to squeeze out additional savings.

BPA has already cut about $140 million in its internal operating costs through a number of measures such as freezing almost all outside hires and reducing travel budgets.

The agency has also frozen power-related operating costs through 2006 at the fiscal year 2001 level.

BPA had $800 million in financial reserves at the start of fiscal year 2001 that has since dropped to $200 million, the lowest in over a decade.

BPA's financial problems started after it bought up to 20 percent of its electricity in day-ahead wholesale markets during California's 2000-2001 energy crisis that drove power prices sharply higher throughout the West.

Wednesday February 19, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 2/18): 46,429 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $46 - 52 per MWh
- Approximate change from previous week $+6.0 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $36.96 per barrel (year ago: $20.40)
- Approximate change from last week: $1.80 per barrel
- Seattle gasoline price (2/18) $1.70 per gallon, see chart on pg. 6 (year ago $1.22)
- Natural gas, Sumas Hub: $5.16 per million British Thermal Units (year ago $2.07)

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - NW Aluminum industry in peril (Natural Gas Weekly, Feb. 15)
  - Tough times ahead for US natural gas market (The Dallas Morning News, Feb. 13)
  - Snohomish to pay AEP 59 mln. to drop supply contract (Reuters, Feb. 14)

4. River and Snowpack Information (Updated Feb. 10, 2003)

- Observed February stream flow at The Dalles: 91.2% of average
- Observed January precipitation above the Dalles: 115% of average
- Observed 2003 snow pack as of Jan. 30: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

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  - Net power export: 2023 MW

NW Aluminum Industry in Peril; Hydro Conditions Worsen Fate

By David Udoff

The natural gas and power sectors have long relied on manufacturing and industrial processes for demand growth, but high energy costs, tight labor markets, and a shift toward a more service-driven economy are spelling the demise for some industries.

Nitrogen and fertilizer producers have borne the brunt of damage in volatile US gas markets and many are steadily shifting operations to proximate and low gas-priced Trinidad. The aluminum industry may be the next to fall, with its largest producers now starved of once-cheap hydropower. Aluminum smelting activity in the Pacific Northwest, virtually on ice for the better part of two years, appears to be on the verge of extinction — a casualty of, among other things, high power prices, limited rainfall, slipping aluminum prices, and competition from around the world. John Mothersole, non-ferrous metals analyst for Global Insight in Washington, D.C., is projecting that smelting capacity in the Northwest will gradually die out as it becomes increasingly uncompetitive.

"Almost without exception, US smelters are moving up on the global cost curve and this means they will increasingly struggle over the next 10-15 years," Mothersole said. "Whether they are quickly killed like Japanese capacity in the 1970s or slowly die off — [which is] my bet — is open to question. But rated capacity in the US will be less 10 years from now than it is today and it will be less in 20 years than it is in 10 years."

Since the spring of 2001, 10 smelters in the Pacific Northwest have shut down. Two of those facilities are owned by Houston-based Kaiser Aluminum, which declared Chapter 11 bankruptcy a year ago.

Kaiser recently sold its Tacoma, Washington smelter, which is going to be razed, according to Edward Mosey, spokesman for the Bonneville Power Administration (BPA). The Portland, Oregon-based agency markets and delivers electricity and transmission throughout the Northwest region. Kaiser is trying to sell its other smelter in Washington State — the Meade plant in Spokane — which recently had its power contract with BPA terminated. Other smelters in the region have also been sold, had their BPA contracts terminated, and/or are rumored to be scheduled for razing. Mosey did not mince words when describing the future of the Pacific Northwest's smelters. "Grim," he said. "BPA prices will be $37/[MWh] through 2006. Market conditions for aluminum [are] dismal here and abroad." Alcoa and Glencore — which own two of the three smelters still operating in the Pacific Northwest — "seem to be the healthiest and most likely to survive," Mosey remarked. "Golden Northwest is teetering on [the] edge of insolvency. Northwest utilities are willing to sell the firms collectively about 800 MW [of generation demand] under new contracts in 2006. But will they operate? No one knows." Glencore owns the 168,000-metric ton (mt) Columbia Falls smelter near Kalispell, Montana, and Alcoa owns the 278,000-mt Ferndale plant near Bellingham, Washington. All three smelters still running are operating at less than half of their capacities.

One of the prime reasons for these smelters' failure is the uncertainty of their electricity bills. For years BPA has offered plentiful and inexpensive hydropower, but a dry and devastatingly warm winter has cut its availability. Industrials can fire up new gas-fired generation to make up for the lost hydro supply, but this looks to be prohibitively expensive if gas prices remain high, as many predict. When precipitation has come to the Northwest it has often arrived as rain due to persistently mild

temperatures, a predicted consequence of El Nino. In a normal winter the heavy Northwest mountain snowfall will act as a water storage reservoir, keeping rivers high and generators spinning in the spring and summer. The lack of snowfall means the Pacific Northwest is more prone to run dry this summer. Debbie Strumsky, power and gas analyst for ESAI, said that snowpack levels are low as 25% of normal in some areas. "The bounty of precipitation has resulted in hydro dumping in recent weeks and boosted amounts of hydro generated megawatts on the system," she said. "However, after the current surplus has been released, the warmth of spring will bring dismal run-offs and hydro generators will head into summer 2003 with limited capability." "We could be heading into the worst three-year water conditions on record," said Paul Norman, a BPA senior vice president. "It's particularly challenging when we are dealing with both poor water conditions and poor market conditions, as well as serving an additional 3,000 MW of customer load placed on us in 2002."

As a result, BPA earlier this month said it expects to raise its wholesale power rates by about 15% for utilities and large industrial customers due to poor water conditions and lower-than-expected secondary revenues from surplus power sales.

This only makes a bad situation worse, Morthersole noted. "I have been anticipating the gradual closure of capacity in the Northwest for about two years now," he said. "I think BPA's decision to raise rates brings forward the day of reckoning." The Northwest's hydro capability issues extend into Canada as well. Last week, Vancouver-based BC Hydro said a preliminary analysis of this winter's snowpack in the western Canadian mountains indicates that inflows to its reservoirs will be 10% below normal. Despite these low water levels — which supply the utility's hydroelectric facilities — the company still expects to meet its revenue target of C$300 million (US$196 million). But BC Hydro has warned that if the low snowpack levels continue, it could push up costs for the provincially-owned utility.

Weak demand and a glut of global aluminum capacity has exacerbated the pain for US producers. World aluminum consumption in 2003 is only expected to match that of 2002, according to Daniel Roling, mining analyst for Merrill Lynch.

Roling said the most recent aluminum industry data do not support signs of a price recovery. Orders, production, inventory levels, and operating rates do not point to a nearterm rebound in prices, he said.

The actual 2002 average aluminum price per pound was 61¢/lb — far lower than what many analysts projected. Merrill Lynch estimates this year's average price at 68¢, followed by 72¢ in 2004, and 68¢ over the long term. None of those prices are high enough for any of the idled US aluminum smelters to restart.

Meanwhile, smelter production continues to grow overseas, with recent announcements of smelter construction in Russia, Venezuela, Iceland, and China. Most recently, a $600 million contract was awarded for the construction of a smelter in South Africa. Mothersole acknowledged that it is difficult to know whether all these projects will keep the market in a surplus forever. Still, he sees these developments as a sign of the times.

"I think what is interesting about the future capacity additions is their location," Mothersole said. "Outside of China, they are not in big consuming markets, i.e. — not in the US or Europe. Locating

a smelter is driven by cost and Europe and the US are no longer cost competitive. Labor and electricity are just too expensive. When the bankers pull in the accountants, they cross off both places."

Tough Times Ahead For US Natural Gas Market

By Sudeep Reddy, The Dallas Morning News -- Feb. 13

Natural gas prices are likely to remain at higher levels for at least the next two years, due to market volatility and inadequate production that is crimping supplies.

And the U.S. natural gas market will see a transformation similar to the shift in oil markets during the 1970s, when domestic production reached its peak and began falling -- leading to a greater focus on the Middle East and other key exporters for the country's energy needs.

That was the verdict from executives and industry experts on Wednesday at the annual conference of Cambridge Energy Research Associates.

As if the upheaval in other sectors of the industry wasn't bad enough, natural gas markets are in for a bumpy ride.

"Existing supply basins in North America cannot meet the supply challenges that are ahead of us," said Hal Kvisle, president and CEO of TransCanada PipeLines Ltd.

A key reason: Growing demand. The popularity of natural gas as a relatively clean energy source compared to coal and oil has strained supplies even as the most accessible reserves dwindle.

North American production will continue to be a key part of U.S. supplies, and companies will seek greater production from areas such as the Rocky Mountains, Alaska and the Gulf of Mexico. They'll also look to increased activity in Canada as they try to maintain production on the continent.

But industry experts see a long-term shift in the nation's outlook for natural gas -- similar to what happened in the 1970s when declining U.S. oil production brought a greater reliance on foreign sources.

"The demand for oil from the United States became a great vacuum cleaner that sucked in from the world's market," said Simon Blakey, CERA's senior director of European gas.

He said subsequent geopolitical turmoil from the Arab oil embargo layed bare the nation's dependence on imports.

Natural gas appears to be following the same demand path, as "the lower 48 [states] of the U.S. looks as if it is no longer broadly self-sufficient."

More than 99 percent of the natural gas used in the United States today comes from North America, and a tiny fraction reaches the continent by sea as liquefied natural gas, or LNG.

The expectations for LNG to meet future demand has quickly crept up on the market, with several industry officials noting that LNG has gone from being a novelty or sideshow to a fait accompli in just a few years.

Companies say they face federal limits on where they can drill domestically. And wild swings in gas prices have also scared away many natural gas producers, who say they face difficulty in planning for long-term projects without certainty in commodity prices.

"These near-term higher prices are really weighing on the minds of that long-term investor," who may fear that natural gas prices would fall enough for users to consider other fuels such as coal, said Michael Zenker, CERA's senior director for North American natural gas.

Meanwhile, the United States faces a projected 50 percent increase in demand for natural gas over the next two decades, said William Michael Warren, chairman and CEO of Energen Corp.

"That demand growth must be met by non-traditional supply sources," Mr. Warren said.

Adding new supplies from other countries could help support more stable prices to counteract the volatility that has weighed heavily on the industry.

In the winter of 2000-2001, record-cold temperatures and stronger-than-expected demand sent prices to about $10 per million British thermal units. The following year, prices dipped to about $2 per million Btus due to high storage, warmer weather and a weak economy. Natural gas for March delivery closed Wednesday at $5.79 per million British thermal units, up more than 150 percent from a year ago.

The swings have had broad effects on the economy, especially on manufacturers and other industrial users that have left the United States for overseas locations where fuel costs could be lower, Mr. Warren said.

"Price volatility has a profound and usually adverse effect on business decisions at all levels," he said.

Residential consumers face not only higher heating bills for homes heated by natural gas, but higher power costs overall. On a national level, coal is used for the majority of electricity generation. But in Texas, half of the state's power plants are fueled by natural gas.

A hot summer could lead to more demand for electricity at gas-fired plants and send prices even higher. A 1 percent increase in demand could push prices higher by $1 per million BTUs a year, CERA said. And a dry season could cut the potential for hydroelectric power in the West, leading to more demand for natural gas.

"The supply challenge is becoming a season-neutral issue -- difficult in both the summer as well as winter," said Wallace Parker, president of KeySpan Energy Delivery in New York.

Executives say that natural gas between $3.50 and $4 per million Btus would strike the best balance between encouraging new production from the industry and allowing reasonable prices for consumers.

CERA projects prices to average $4.62 per million Btus this year, and $4.72 per million Btus next year based on natural gas delivery from the Gulf of Mexico.

The higher prices will remain until at least 2005, when new production from some domestic areas is expected to come online. Still, the demand for foreign imports will be a long-term concern, CERA's Mr. Zenker said.

"There is abundant gas in the world," he said. "The challenge isn't to go out there and find it. It's to produce it and bring it to the right markets."

Snohomish to pay AEP 59 million to drop supply contract

WASHINGTON, Feb 14 (Reuters)

American Electric Power Co. Inc. on Friday said a Pacific Northwest municipal utility agreed to pay it $59 million to settle a dispute over a long-term electricity contract signed in 2001.

The Columbus, Ohio-based firm said it signed an agreement with the Snohomish, Washington, utility to cancel the contract effective immediately.

The case was set to begin as a formal hearing before the Federal Energy Regulatory Commission (FERC) next week.

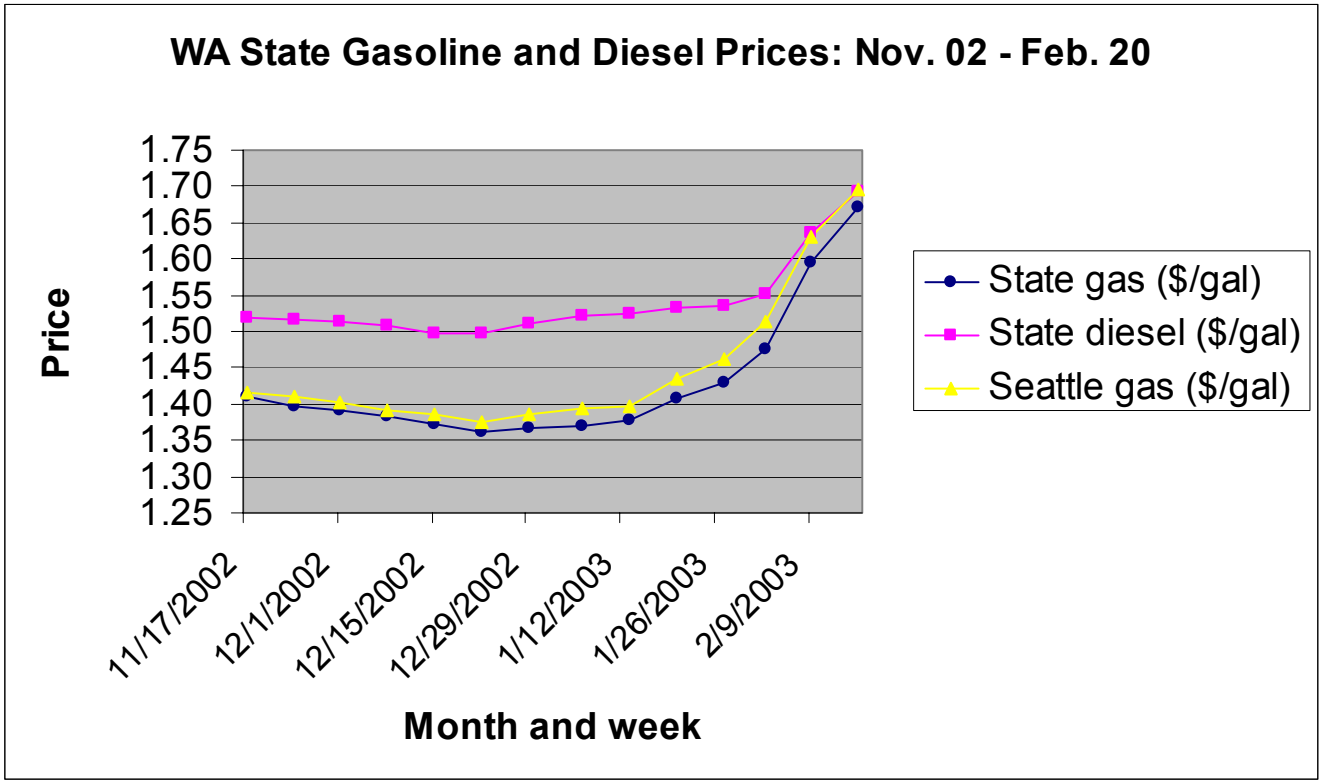
The two firms struck a deal after telling a FERC judge last week that settlement talks were unfruitful. Snohomish has agreed to drop its complaint at FERC, AEP said.

"We are gratified to have reached a reasonable resolution to this dispute and avoid a drawn out, expensive proceeding," AEP executive vice president Holly Koeppel said.

On an after-tax basis, AEP said the settlement will negatively impact its 2003 earnings by about $6.5 million because the firm used mark-to-market accounting rules to value the contract.

Snohomish had complained to FERC that a five-year supply contract signed with AEP in January 2001 for $150 per megawatt-hour (mWh) was unfairly priced.

Power prices have traded around $30 per mWh since the end of the 2000-01 energy crisis that triggered blackouts and billions of dollars in economic damage to the region.



Tuesday February 25, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Friday, 2/24): 45,540 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $44 - 53 per MWh
- Approximate change from previous week $+1.0 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $36.48 per barrel (year ago: $20.40)
- Seattle gasoline price (2/18) $1.77 per gallon, see chart on pg. 7 (year ago $1.21)
- Natural gas, Sumas Hub: $9.60! per million British Thermal Units (year ago $2.07)
- Approximate change from last week. Oil: -$0.48 per barrel, Nat. gas: +$4.40

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - US natural gas prices hit record high on cold and low supplies (Reuters, Feb. 24)
  - Natural gas up next as Domenici rolls toward drafting energy bill (Environment and Energy Daily, Feb. 23)
  - Nuked (The Economist, Feb. 20)

4. River and Snowpack Information (Updated Feb. 25, 2003)

- Observed February stream flow at The Dalles: 94.7% of average
- Observed February precipitation above the Dalles: 68% of average
- Observed 2003 snow pack as of Feb. 20: 78% of average
- The latest forecast of Columbia River stream flows this January through June is 76.5 million acre feet, 70 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Feb. 25)

- Federal reservoir system storage: 47% full: Precipitation Oct. – to date, 23 inches, 81% of normal.
- Estimated winter (2002/03) load loss probability of 1%

7. Power Exchanged: (Feb. 25)

- Average flow of power during the last 30 days
  - California (exported to) 1796 MW
  - Canada (exported to) 236 MW
  - Net power export: 2032 MW

U.S. natural gas hits record high on cold, low supplies

By Spencer Swartz, Reuters - February 24, 2003

SAN FRANCISCO, Feb 24 (Reuters) - U.S. spot natural gas prices soared to a record high on Monday on a blast of cold air that is seen boosting heating demand into next week in a market already worried by tumbling gas supplies.

"These are nose-bleed prices," said James Wicklund, managing director of energy research at Bank of America Securities, referring to the sharp price rise.

"If it doesn't get cold again past today it doesn't matter. Prices are going to be high" in the weeks and months ahead, he said, citing forecasts for more cold weather this week.

Also stoking the rally is the growing gap between rising demand for natural gas - especially from new power plants - and what the nation's aging fields can provide.

The combined effects of cold weather, dwindling supplies and a lagging drilling program has driven gas inventories 43 percent below levels seen at this time a year ago.

Day-ahead gas prices at Henry Hub, the benchmark delivery point in Louisiana, hit all-time highs, soaring to near $12 per million British thermal units (mmBtu).

About 5 percent of all the gas sold in the United States each day is done in the "spot" market, with nearly all the rest logged in the futures market, according to Bank of America.

Still, gas futures are trading around two-year highs, offering end-users little escape from costly gas prices. The the front-month March contract on Monday traded as high as $9.20, a 25-month high, and up nearly 40 percent from Friday.

The high prices are driving energy costs sharply higher at a time when U.S. consumers and businesses, bracing for a U.S.-led war with Iraq, are hesitant to ramp up spending on new goods and services.

On Friday, Merrill Lynch analyst John Herrlin raised his estimated average first-quarter price for gas at Henry Hub to $5.50 from $4.90. For the year, he predicted gas prices at $4.50 versus an average 2002 price of $3.37.

FUNDAMENTALS

U.S. weather so far this winter has been about 4 percent colder than normal and 20 percent colder than in 2002, according to data compiled by UBS Warburg.

And while temperatures can be expected to rise in the weeks ahead as winter comes to a close, many energy analysts say they expect gas inventories to end the winter heating season near record-low levels, setting the stage for high prices again next winter.

Gas inventories, a critical supply source used during periods of high demand, comprise about 15 percent of annual U.S. gas demand.

But energy analysts said rebuilding stocks from a record-low base will be far more difficult because the amount of new gas drilled in the United States continues to dwindle as old fields yield less gas and demand for the cleaner-burning fuel will rise as the U.S. economy recovers.

"If we get this demand growth and production falls where we think it's going to fall, this could be a train wreck," said Jay Saunders, a New York-based analyst at Deutsche Bank.

Saunders said Deutsche Bank was expecting U.S. gas demand to rise about 5 percent in 2003 after being flat in 2002 and U.S. gas production to fall about 2 percent after dipping 3 percent last year.

Added to declining U.S. gas production, Canadian imports, which meet about 15 percent of U.S. gas demand, fell for the first time since 1986 last year, while the amount of U.S. gas exported to Mexico to produce electricity is rising.

Canadian imports are expected to dip again by as much as 3 percent in 2003 as America's northern neighbor struggles to meet its own rising gas demand and new gas fields become scarcer.

Analysts, however, say a return to all-time high gas prices of $10 seen in December 2000 may be slowed by reduced demand once it becomes too costly for some businesses to operate at full production.

Earlier this month, for example, Potash Corp. of Saskatchewan Inc. ((POT.TO)), the world's biggest fertilizer producer, announced it was scaling back ammonia output by 10 percent at an Ohio plant in response to the rising prices of gas, a primary component in fertilizer production.

Natural gas up next as Domenici rolls toward drafting energy bill

Colin Sullivan, *Environment & Energy Daily*

Senate Energy Committee Chairman Pete Domenici's (R-N.M.) blueprint for building a comprehensive energy bill from the ground up resumes this week with a hearing on natural gas supply and prices as the committee considers how to enhance domestic supply to account for expected demand growth over the next two decades.

At the forefront of this debate are the challenges facing U.S. production, with Energy Information Administration data pointing to a 1.8 percent per-year surge in natural gas demand through 2025 with a corresponding 1.3 percent annual rise in U.S. production. This will leave the gas-fired power sector searching for new supply, much of which will have to come from liquefied natural gas (LNG) imports and alternative sources like coalbed methane and oil-sands technology.

A Domenici spokeswoman said the chairman is concerned about the natural gas sector heading the way of oil markets, with imports increasingly accounting for a bigger slice of the supply picture. As such, Domenici wants to direct this year's energy bill toward pumping up domestic production in the Rocky Mountains, Alaska and the Gulf of Mexico in addition to expanding LNG import facilities.

This mentality is consistent with EIA's 2003 energy outlook, which said demand growth and the depletion of conventional resources in the Lower 48 will make the gas industry increasingly reliant on large, new domestic and imported supply projects such as the Alaskan natural gas pipeline, the MacKenzie Delta pipeline in Canada and new LNG

facilities in both the United States and those built to serve U.S. markets (in Mexico's Baja California or the Bahamas).

EIA called development of new supplies through large-volume projects and expanded LNG operations a "major consideration" for energy markets, and Domenici plans to make future natural gas supply problems one of his top priorities in this year's energy package. The committee then will look at the challenges associated with building a pipeline to Alaska's North Slope and consider ways to improve use of unconventional sources, among other topics.

In its outlook, EIA projected the Alaskan natural gas pipeline will come online in 2021 (excluding consideration of any potential loan guarantees by the federal government that accelerate construction), with the MacKenzie Delta pipeline following in 2016. Total LNG imports were seen growing to 1.6 trillion cubic feet (Tcf) by 2020 and 2.3 Tcf by 2025 with facilities online in the Gulf region, serving Florida (via the Bahamas) and California (via Baja California), with demand in the same time frame expected to eclipse 26 Tcf nationwide.

The timing and demand for these supplies varies depending on the rate of technological improvement. If drilling costs, success rates and finding rates improve at a slower rate, the

Alaskan natural gas pipeline and MacKenzie Delta pipeline are projected to come online earlier, in 2019 and 2015, respectively. In this case, total net LNG imports grow to 2.3 Tcf by 2020 and 3.2 Tcf by 2025, EIA said.

Conversely, if more rapid technology improvement holds down natural gas prices longer it will delay construction of these facilities. In a scenario with rapid technology improvement, the Alaskan pipeline is not economically viable until 2024 and the MacKenzie Delta pipeline is delayed due to economics until 2020. Total net LNG imports grow more slowly with greater domestic production and LNG imports reach 1.2 Tcf by 2020 and 2.1 Tcf by 2025 in this case.

LNG

According to an industry study, LNG could account for as much as 11 percent of total U.S. natural gas supply by 2010, compared with just 0.1 percent today. But some experts have taken issue with that total, saying the increase will likely fall within a more realistic 3 percent range.

Because traditional North American natural gas production is headed toward a long-term decline, even with high projected demand and gas prices rising as high as $5 per thousand cubic feet (Mcf) this winter, world markets will have to supply increasing amounts of compressed LNG to make up the gap, Cambridge Energy Research Associates said in a report last month. Much of this new supply will come from abroad, from leading exporters Trinidad and Tobago, Qatar, Algeria, Nigeria, Oman, Australia, Indonesia and the United Arab Emirates.

"Drilling activity is lagging, and an expected increase in drilling activity that should start later this year is not likely to produce anything more than a modest increase in production by mid-decade," said CERA Director Robert Esser.

"None of this will be enough to stem the long-term decline in North American natural gas production," he said.

Gas-fired power generation is expected to drive a 14 percent increase in natural gas demand, but U.S. production will be 6 percent lower by the end of the decade as the resource base itself depletes, CERA found. Increased well decline rates, volatile gas prices and the lag time of production-rate responses to increased drilling activity are among the factors expected to hurt traditional U.S. production.

LNG development should grab a significant new portion of market share, but only if a combination of expansions at existing LNG terminals and new regasification terminals come through. The Federal Energy Regulatory Commission has already taken aim at expanding existing LNG facilities and in December approved plans for construction of the country's first LNG import facility in 25 years.

Some energy experts, however, have balked at the CERA report, saying they doubt these targets are feasible. "Regardless of speeded-up activity on new receiving terminals in this country and Mexico (as well as improved technology), it is not technically, economically, or politically feasible to have LNG provide 'as much as 11 percent of total U.S. natural gas supply by 2010,'" said Joe Dukert, an independent energy analyst. "For many, many reasons, we will continue at the end of this decade to rely primarily on pipelines rather than pipe dreams."

Schedule: The Senate Energy Committee hearing on natural gas supply and prices is slated to begin at 2:30 p.m., Tuesday, Feb. 25, in 366 Dirksen

NUKED

Add Japan's faltering nuclear programme to the energy maelstrom

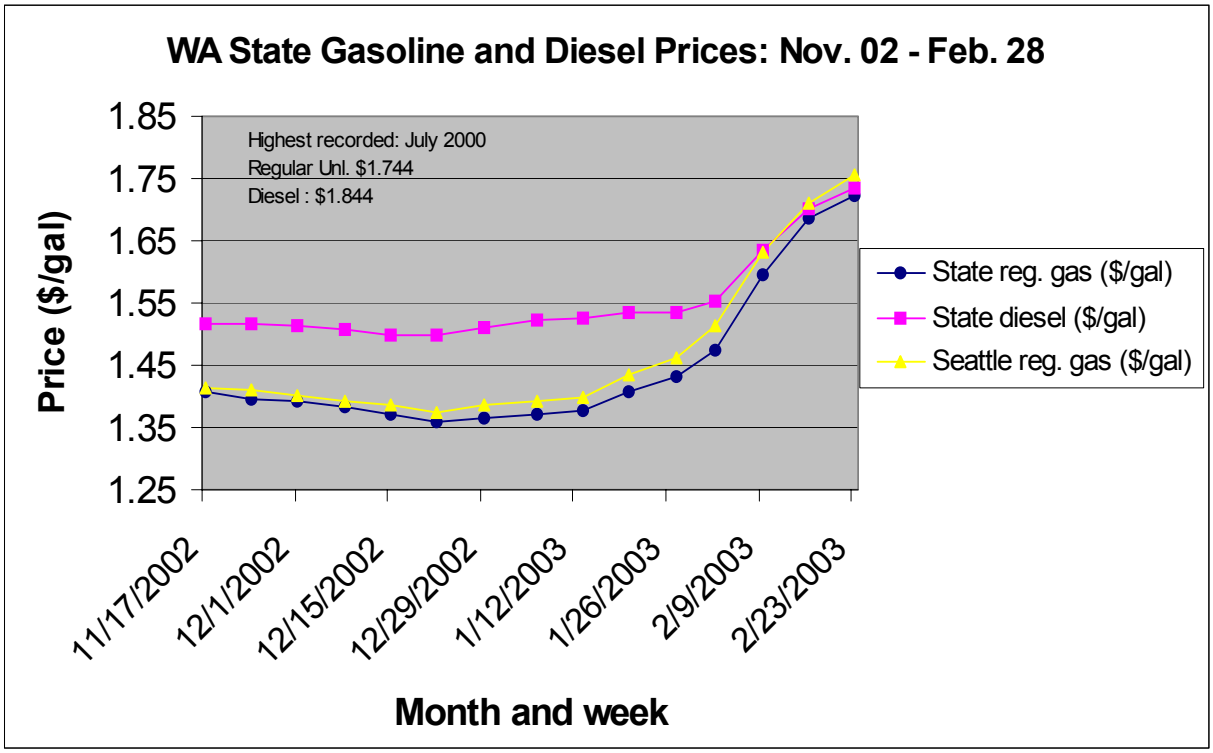
Political turmoil in Venezuela, a strike in Nigeria and a likely war in theGulf have already had a dramatic impact on oil prices, by raising fears of shrinking supply. Into this maelstrom has come a fresh source of demand. Tokyo Electric Power (Tepco), the world's largest private electric-power firm, hashad to close down 13 of its 17 nuclear reactors--which usually supply 44% of Tokyo's electricity--after it was caught falsifying safety records involving cracks at some nuclear-power plants last September. It may have to close the rest for safety checks in April.

As part of its efforts to cover the shortfall, Tepco has increased production at its oil-burning thermal power plants. By last October, crude oil imports shipped to electricity firms were more than three times the levels of a year earlier. By December, they were five times higher. Over the first ten months of2002 Japanese oil imports fell, possibly due to Japan's economic woes; in November they were up by 11% from a year earlier, and in December by 20%, according to the Ministry of Economy, Trade and Industry. The rise is also the result of

unusually cold weather in Japan of late--and perhaps other mystery factors that analysts are struggling to identify.

The result is that Japan will consume an extra 600,000 barrels a day until April, estimates J.P. Morgan. Although that is less than 1% of global consumption, in oil markets an awkwardly timed glitch can have a huge impact. Japan's problems could hardly be worse timed. Since last summer, primarily because of Venezuela, stocks have been declining at an unusually fast rate. This has accelerated; they are now shrinking by 1.2m barrels a day more than past seasonal trends would suggest, to less than one-third of their five-year average, according to J.P. Morgan.

In the months ahead, Japan is unlikely to put further pressure on the market--but only because its oil-fired plants are working at full capacity. Indeed Tepco has begun a campaign to ask consumers to conserve energy, saying that a cold snap in March could otherwise wipe out its safety-net of supplies. The outlook for Tokyo's hot and humid summer, when demand for electricity is at its peak, is grim. Tepco reckons that it may fall short of expected demand by as much as 20% if its nuclear-power plants remain closed. Tepco will probably push to restart its reactors, claiming they are safe. Many residents will no doubt respond that they would be happier increasing their exposure to the risks of the oil markets instead, even if consumers elsewhere might wish otherwise.


WA State Gasoline and Diesel Prices: Nov. 02 - Feb. 28
Highest recorded: July 2000
Regular Unl. $1.744
Diesel : $1.844
Price ($/gal)
1.85
1.75
1.65
1.55
1.45
1.35
1.25
11/17/2002
12/1/2002
12/15/2002
12/29/2002
1/12/2003
1/26/2003
2/9/2003
2/23/2003
Month and week
State reg. gas ($/gal)
State diesel ($/gal)
Seattle reg. gas ($/gal)

Tuesday March 4, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Monday, 3/3): 44,859 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $47.6 – 113.9 per MWh
- Approximate change from previous week $+19 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $35.88 per barrel (year ago: $20.92)
- Seattle gasoline price (2/28) $1.84 per gallon, see chart on pg. 7 (year ago $1.21)
- Natural gas, Sumas Hub: $8.09 per million British Thermal Units (year ago $2.07)
- Approximate change from last week. Oil: -$0.60 per barrel, Nat. gas: -$1.5

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Natural gas prices begin to roil the economy (WSJ, Feb. 28)
  - Officials Say OPEC Can't Keep A Lid on Rising Crude-Oil Prices (WSJ, Feb. 28)
  - Oil price jump adds to jitters over economy (New York Times, Mar. 2)

4. River and Snowpack Information (Updated Mar 3, 2003)

- Observed February stream flow at The Dalles: 95.6% of average
- Observed February precipitation above the Dalles: 75% of average
- Observed 2003 snow pack as of Feb. 20: 78% of average
- The latest forecast of Columbia River stream flows this January through June is 76.5 million acre feet, 70 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2003)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Feb. 25)

- Federal reservoir system storage: 47% full: Precipitation Oct. – to date, 23 inches, 81% of normal.
- Estimated winter (2002/03) load loss probability of 1%

7. Power Exchanged: (Mar. 3)

- Average flow of power during the last 30 days
  - California (exported to) 1610 MW
  - Canada (imported from) 45 MW
  - Net power export: 1565 MW

Natural Gas Prices Begin to Roil the Economy.

WSJ, February 28

Once thought plentiful, the U.S. is now facing a shortage of natural gas that could last for years, and the impact is just beginning to ripple through an already ailing economy.

Cold weather and tight supplies this week caused natural-gas futures prices to soar 65% in one day. This triggered sharp jumps in spot-market electricity prices in some areas of the country where natural gas fuels power plants. Small-business and residential natural-gas customers may see higher bills soon if state regulators approve an increase in rates, but rising prices on the spot market are already taking a toll on some industrial users.

Wheeling-Pittsburgh Steel Corp. is reducing or halting operations at three plants in Ohio because of spiking natural-gas prices. The company said it usually pays between $4 and $7 per million British thermal units, but spot prices have climbed as high as $28 per million Btu. Steel Dynamics Inc., a Fort Wayne, Ind., steelmaker now runs its electric arc furnaces at night and on weekends when electricity prices are lower. Dow Chemical Co., Midland, Mich., a big user of both electricity and gas-feed stocks, has begun raising prices on products because of higher energy costs.

"Strong energy prices weaken the economy, and it's likely to retard the recovery," says Stephen Brown, director of energy economics at the Dallas Federal Reserve Bank. "Nine of the 10 last recessions have been preceded by sharply higher energy prices."

High natural-gas prices will probably strengthen calls for long-term solutions to increase supplies, such as building a natural-gas pipeline from Alaska to tap that state's plentiful reserves or opening up new, environmentally sensitive areas to exploration. But in the near term, the nation's largest producers haven't responded to the higher prices by investing heavily in new North American production. Companies like ChevronTexaco Corp. of San Francisco, for instance, are instead ramping up exploration in search of massive new energy reserves in other parts of the globe, such as West Africa and Kazakhstan.

On Monday, the composite price of March natural gas on the New York Mercantile Exchange jumped 65% to $10.90 per million British thermal units from $6.60 Friday. Yesterday, natural gas for April, the new month-ahead contract, rose 9.5 cents on the Nymex to $7.485. Cold weather ate through reserves in storage this week and raised the possibility of real shortages. Although prices are expected to moderate somewhat in coming weeks, industry observers say the U.S. is entering a prolonged period of higher natural-gas prices, and the days of $3 natural gas, which lasted from the mid-1980s until about 2000, may be gone.

At the heart of the problem: Demand for natural gas has been growing heavily for several years as gas-fired power plants are built, consuming a total 30% more fuel since 1996, and as more Americans move into new homes warmed by natural gas. Meanwhile, domestic-production growth has been anemic. In 2002, U.S. production of natural gas fell 5.5% from a year earlier to 48 billion cubic feet a day, according to Lehman Brothers.
Production is expected to continue falling at least through 2005.

There is growing doubt that companies can drill their way out of this shortage scenario anytime soon. A similar price increase in January 2001 led to a surge of natural-gas exploration, but the new wells were depleted quickly and didn't add much long-term production. Companies are turning to expensive new technology to extract smaller amounts of gas from older fields across the Southwest and in shallow Gulf of Mexico waters. The industry "has gone to more and more marginal prospects as they go back to same areas over and over again," says Dick Sharples, senior vice president at Anadarko Petroleum Corp., the largest independent natural gas producer in the U.S.

While production has declined in recent years, relatively warm winters have masked the problem. This winter has been cold, draining reserves. The federal Energy Information Administration reported yesterday that there were 1,014 billion cubic feet in storage in the week ending Feb. 21. That's 33.4% below the five-year average, a commonly used yardstick. Refilling underground storage sites is expected to keep prices high this summer, and demand is expected to trail off -- by as much as 4.5% in 2003, according to a Lehman Brothers estimate.

Piping-hot gas prices have put heat on electricity prices in some regions, especially California and Texas where gas, not coal, is the primary fuel used by power plants. This week, Texas has weathered an ice storm, pushing electricity demand up as much as 30% above normal, and a sudden shortage of natural-gas inventories that forced some power plants to cut production. Wholesale power prices rose to a record $990 per megawatt hour during periods of peak demand during the first few days of the week, just below the State’s $1,000 price cap.

Sam Jones, chief operating officer of the grid-running Electricity Reliability Council of Texas, said the situation pushed the state into a first level of electrical emergency.

In California, gas prices in the $10 per million BTU range sent a jolt through that state's electricity market, quickly pushing spot-market prices to $80 to $143 per megawatt hour, at times, on Tuesday, Wednesday and Thursday. Even though those prices were triple the average price of a year earlier, they were far less than during the state's energy crisis of 2000 and 2001. In February 2001, in the thick of the crisis, the total average cost was $373 per megawatt hour for electricity purchased on the open market.

In New York, electricity prices have been creeping up for months but really shot up this week, boosted by winter storms and high natural-gas prices. Wholesale electricity prices hit $175 per megawatt hour in New York City by midweek, traditionally the highest-priced part of the state, and they were expected to be only slightly lower today as gas prices eased from $28 per million BTUs on Tuesday to about $13.

Bill Museler, chief executive of the New York Independent System Operator, said some plant operators are switching to oil since it costs $9 per million BTUs. About 10% of the state's generating capacity is capable of such fuel switching.

Not surprisingly, high-energy prices have renewed demands from public officials that regulators determine if suppliers are manipulating the nation's markets. The Federal Energy Regulatory Commission said it is looking into the matter, but some state officials are expected to conduct separate probes, as well.

Energy producers aren't charging out into the field to take advantage of the higher natural-gas prices. No one expects the prices to stay at $9, but even if they drop to the historically high $5 vicinity, it isn't expected to be enough to entice big energy companies to ramp up their U.S. drilling programs. Without new discoveries in the U.S., ChevronTexaco produced 13% less natural gas in the U.S. in 2002 compared with a year earlier, according to Lehman Brothers.

The picture isn't much better for smaller independents. Anadarko says that in order to bump up production by just 3% in 2003 in the lower 48 states, it plans to increase its development spending 51% to $672 million from $445 million. What's more, the flow of natural gas from many of its newly completed wells is short-lived. In some mature fields, such as the East Texas Bossier play, the gas will flow from a successful well quickly, but in a year, the volume will have dropped 70%, says Mr. Sharples.

Increased imports aren't likely to ease the tight market. Rising demand in Canada and disappointing production has cut export levels, and Mexico is a net importer of natural gas. The U.S. imports a small percentage on ships in the form of liquefied natural gas. To ease the supply crunch, companies are advocating major changes, including opening areas to exploration that are currently closed -- such as the eastern Gulf of Mexico, off the West Coast, and large swaths of the Rocky Mountains. There also are calls to speed up the permitting process for new LNG terminals, a time-consuming and politically fragile process. While most gas is moved by pipeline, it can be converted to a liquid form at a very cold temperature and moved on ships. More LNG imports are constrained by terminal capacity.

Officials Say OPEC Can't Keep A Lid on Rising Crude-Oil Prices -

WSJ February 28

With U.S. crude-oil prices fast approaching $40 a barrel -- the highest since the start of the Persian Gulf War -- senior OPEC officials acknowledged that their increased production can no longer suppress the price rise, at least for now.

The officials from the Organization of Petroleum Exporting Counties also said that only a dwindling amount of extra production capacity is left to meet world demand. A senior official from a key OPEC country said the group would almost certainly decide to supply even more oil, probably by removing all production restraints, when the group's ministers meet March 11 in Vienna. A decision to open the spigots wide could come even before then if prices continue to spike, he said.

The recent price increases come on fears of another war against Iraq and low inventories aggravated by a shortfall in Venezuelan production due to a strike aimed at toppling President Hugo Chavez. A cold snap in North America and sharply rising natural-gas prices also have contributed to the run up in oil prices, now the highest since 1991. After hitting an intraday

high of $39.99 a barrel, U.S. light crude for April delivery settled yesterday at $37.20 a barrel, down 50 cents, on the New York Mercantile Exchange.

"At this time, the funds, traders and speculators on the Nymex are more powerful than OPEC," the senior official said. "Some things you can control, and some things you can't."

The sharp rise in prices represents a serious threat to the sputtering U.S. and global economic recovery. Prices are rising for everything from jet fuel -- which is leading to higher airfares -- to gasoline -- already more than $2 a gallon in some U.S. markets -- and that is driving up the cost of doing business for many industries. Adam Sieminski, an analyst at Deutsche Bank, says that global gross domestic product declines by as much as 0.5% for every $10 rise in the price of a barrel of oil. "This is going to lay a huge egg on the economy," Mr. Sieminski said.

Another senior OPEC official said that major consuming countries – such as the U.S., Japan and Germany -- may have to release oil from their strategic stockpiles to ease the international supply pinch. "OPEC has limitations, and people should understand that," the official said.

OPEC has only one option left: unused production capacity that is variously estimated at between 1.5 million and three million barrels a day. Once this is used up -- as it quickly could be if Iraq's exports of some two million barrels a day are interrupted by war -- the world's complex system of oil supply will be operating flat out and energy markets will be highly vulnerable to any disruption.

The comments by the OPEC officials come as the U.S. prepares for a possible invasion of Iraq, a move that has little support among OPEC members. The organization also has a certain interest in maintaining a tight oil market, since high prices represent an extraordinary windfall for the group's member countries. Indeed, OPEC, in seeking to keep oil prices near $30 over the past several years, has been far more willing to risk higher prices than lower ones.

Officially, OPEC continues to suggest that it can meet the growing demand. Alvaro Silva, OPEC's secretary-general, said the group's members could offset the loss of Iraqi crude in the event of war and that the major consuming countries won't need to dip into their strategic petroleum stocks. A Saudi official added: "No oil company coming to us to buy crude is being turned back."

But industry analysts blame the current price run-up on OPEC's recent practice of dribbling out only enough extra volumes of oil to preclude any threat of price declines. Instead, OPEC could have pumped up output quicker and by larger amounts to hold down price increases. "They've been fooling around for the past year, not giving the market the oil it needed," said Leo
Drollas, deputy director at London-based Centre for Global Energy Studies. "Now, OPEC alone can't close the gap" if a war in Iraq disrupts supply.

OPEC has been producing increasing volumes of oil in recent weeks, but prices continue to rise. Mr. Drollas said that in the short term, OPEC can increase its output by only 1.3 million barrels a day, or some 700,000 barrels less than Iraq's exports, assuming Saudi Arabia is

producing at nine million barrels a day. Given a couple of months, OPEC can raise output by an additional one million barrels a day, he said.

Saudi Arabia, the world's largest exporter, which has most of OPEC's unused production capacity, jealously guards its output data. But the kingdom's oil officials have previously indicated that they can quickly raise output to 9.5 million barrels a day from roughly nine million today, and then to 10.5 million barrels daily within 90 days.

Underpinning the high price of oil are historically low commercial inventories. In the U.S., the world's largest oil consumer, the Energy Information Administration said stocks declined by one million barrels in the week ended Feb. 21 to 271.9 million barrels. That is 12% below the five-year seasonal average and 16% below year-ago levels. Inventories of heating oil are 10.3% below the seasonal average and 18.4% below year-ago levels, while gasoline stocks are 3% below the average and 2.8% below year-ago levels.

For their part, traders said they had little confidence that OPEC could calm markets, even if the group resorted to its spare production capacity. "At this point, war fears are too great," said John Kilduff, an analyst at Fimat U.S.A., a commodities brokerage house.

Oil Price Jump Adds to Jitters Over Economy

By DAVID LEONHARDT

The most common cause of recessions, a surge in oil prices, is again afflicting the global economy.

Just as they have before every American downturn over the last 40 years, energy costs have risen significantly in the last year, capped by a sharp spike since December. With more money being spent on gasoline and heating fuel, economic growth has slowed in both the United States and Europe, and the uneven recovery that began in late 2001 is facing perhaps its biggest threat yet.

Most forecasters expect the United States economy to avoid a new recession this year, saying that only an unexpectedly protracted war in Iraq would keep oil at its current price or higher. But any war is an unknown, and the price increases for both oil and natural gas have already caused consumers to cut back on other spending. The increases have also created a new problem for businesses trying to emerge from the hangover of the late-1990's boom.

"The economy is extremely fragile," said Mark M. Zandi, the chief economist at Economy.com, a research company in West Chester, Pa. "We've got some real problems if this drags on for any length of time."

Energy costs began rising more than a year ago, when the Organization of the Petroleum Exporting Countries cut production in response to the weak global economy. The potential war in the Persian Gulf, political chaos in Venezuela and a cold winter in the United States caused the price of a barrel of oil to soar to almost $40 on Thursday, the highest since Iraq invaded Kuwait in 1990, before it retreated to $36.60 on Friday in New York. That is up about 69 percent from a year ago.

Every time that oil prices have risen by at least 60 percent since World War II, a recession has occurred in the United States, with the exception of a one-month blip in oil prices in 1987.

The current annual increase is similar to the jumps of late 1990, when a recession was starting, and the summer of 2000, nine months before another began.

Higher energy costs reduce economic growth by effectively forcing families and businesses to send more money to a small number of oil-producing countries, leaving less to be spent on goods and services that create jobs at home.

Energy prices affect Europe and Japan even more severely than the United States, which produces more of its own oil and natural gas. Britain reported last week that its economy had grown at the most sluggish pace in 10 years during the last three months of 2002. The German economy shrank at the end of last year for the first time in a year.

"The single best cyclical indicator for the world economy is the price of oil," said Andrew J. Oswald, an economist at the University of Warwick outside Coventry, England. "Nothing moves in the world economy without oil in there somewhere."

In recent weeks, a number of big American manufacturers have blamed higher energy costs for cuts in their earnings forecasts. A few have cited oil prices while postponing new investments that could add jobs, even as an overall rise in business spending has suggested that the economy might be picking up speed were it not for energy.

For example, DuPont, the large chemical maker, recently delayed until June an expansion of its business that had been scheduled to start in February, according to Ann K. M. Gualtieri, a spokeswoman.

In Elkhorn, Wis., Hudapack Metal Treating, which employs 125 people, is investing in technology to make its furnaces less dependent on natural gas — which costs more than twice what it did a year ago — rather than spending to increase its production of bolts for pickup trucks.

"You can't take an extra $20,000 a month, throw it at gas prices and expect to be profitable," said Gary Huss, the president of Hudapack, which is merely breaking even.

The ailing airline industry is also being hit hard. American Airlines will probably spend about $200 million more on fuel this quarter than it did a year ago. Standard & Poor's lowered the company's credit rating on Friday, saying fuel costs were one reason that American might have to file soon for bankruptcy protection.

Many companies buy advance fuel contracts, a practice known as hedging, to protect them from some of the short-term price increases. United Parcel Service has purchased gasoline hedges, but it will still increase the fuel surcharge on its deliveries to 1.5 percent tomorrow, from 1.25 percent, because of increased costs.

Rising oil prices appear to be helping keep layoffs at a pace that few analysts expected, according to government figures, delaying any major improvement in the nation's moribund job market. The economy employs almost two million fewer people than it did two years ago.

Consumers, paying almost 50 percent more for gasoline than a year ago, in turn are reducing their spending on other goods. Over all, purchases at American retail chain stores fell 1.1 percent in January, according to the Bank of Tokyo- Mitsubishi, which adjusts its numbers for seasonal variations.

At 7-Eleven, people are buying smaller cups of coffee than they did in January and more individual sodas in place of 12-packs, said James W. Keyes, the chief executive. Consumers are also buying less premium gasoline.

"We see the change immediately," Mr. Keyes said. "A 20- to 30-cent-a- gallon shift at the pump can take as much as $50 from the working person each month."

Sales of sport utility vehicles and pickup trucks have fallen recently, while car sales are still rising. The largest trucks, like the Chevrolet Tahoe and Lexus LX 450, are selling particularly poorly compared with a year ago, according to Morgan & Company, a research firm. Analysts are divided over whether fuel prices are a reason, noting that some carmakers have recently reduced discounts for many trucks.

Over all, families are spending about 5 percent of their budgets on energy, up from 4.1 percent in early 2002, according to Economy.com.

About one-third of Americans say the recent spike has caused them "financial hardship," according to a recent Gallup poll. More than one- quarter said they thought that gas prices would be near their current level six months from now, and about one half said they would rise.

"I think it's going to get much worse," said Teri Chavez, a public relations executive in Denver, as she filled the tank of her blue Volvo station wagon last week. "Does it mean that I'm going to stop driving? No. But I might think twice before I take my car up in the mountains."

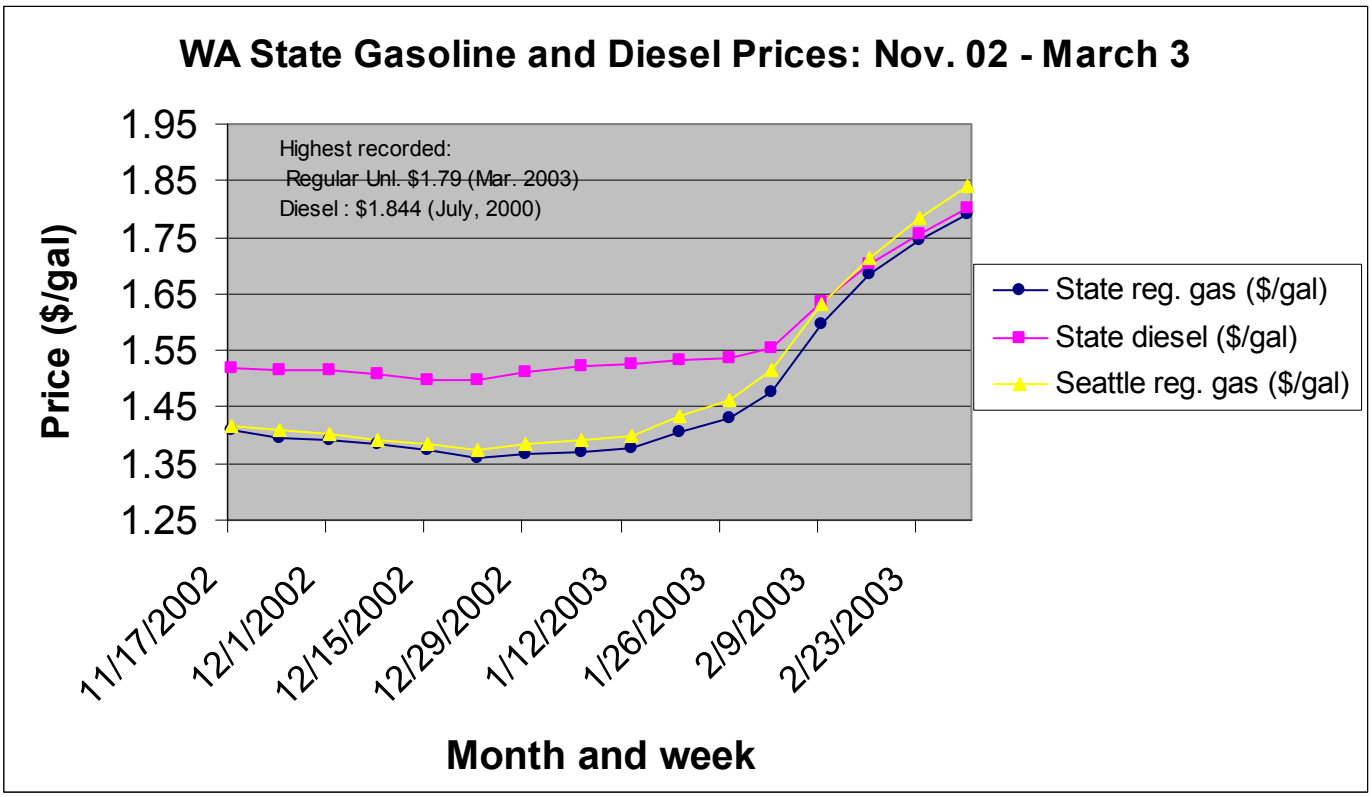
In 1991, oil prices fell almost as soon as the United States attacked Iraq, and many economists think the same could happen this year. Even if a war temporarily reduced the supply of energy, President Bush could release oil from the nation's Strategic Petroleum Reserve to bring down prices, analysts note.

But because oil inventories are lower than they were 12 years ago, a price decline could be smaller today than at the outset of the Persian Gulf war. Based on the price of oil futures contracts, investors are expecting oil prices to remain around $38 a barrel through April and then gradually decline, falling below $30 by the end of the year.

At those levels, oil prices would still probably prevent the economy from growing rapidly this year. But they would also make a new recession unlikely, particularly because business executives have recently shown signs of optimism, increasing their investments in new technology and equipment after almost three years of cuts.

"It's definitely a negative," said William C. Dudley, the chief United States economist at Goldman, Sachs, referring to the cost of energy. "It's just not at the point where we think it's recessionary. But it's fair to say people have generally underestimated the impact of oil-price spikes."

Tuesday March 4, 2003



Wednesday February 19, 2003

Monday March 10, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Monday, 3/10): 43,538 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: $64.7 – 77.0 per MWh
- Approximate change from previous week $-12 per MWh
- "Normal" price range, before 5/00 $20-$40 per MWh
- Petroleum, West Texas Intermediate: $37.76 per barrel (year ago: $20.92)
- Seattle gasoline price (3/7) $1.87 per gallon, see chart on pg. 5 (year ago $1.22)
- Natural gas, Sumas Hub: $8.09 per million British Thermal Units (year ago $2.07)
- Approximate change from last week. Oil: $1.88 per barrel, Nat. gas: 0

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Tacoma Power requests 5 percent rate increase (Tacoma News Tribune, mar. 8)
  - PSE seeks rate increase (Seattle PI, Mar. 6)
  - EIA's rosy gas supply projections in doubt (Natural Gas Week, Mar. 10)

4. River and Snowpack Information (Updated Mar 10, 2003)

- Observed March stream flow at The Dalles: 71.4% of average
- Observed February precipitation above the Dalles: 66% of average
- Observed 2003 snow pack as of Feb. 20: 78% of average
- The latest forecast of Columbia River stream flows this January through June is 76.5 million acre feet, 70 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Mar. 10, 2003)

- **State Agencies:** From January to December 2002 electrical usage was 7.6 % less and natural gas usage was 4.1% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Feb. 25)

- Federal reservoir system storage: 47% full: Precipitation Oct. – to date, 23 inches, 81% of normal.
- Estimated winter (2002/03) load loss probability of 1%

7. Power Exchanged: (Mar. 3)

- Average flow of power during the last 30 days
  - California (exported to) 1610 MW
  - Canada (imported from) 45 MW
  - Net power export: 1565 MW

Tacoma Power Requests 5 Percent Rate Increase

The Tacoma News Tribune, Mar. 8, Paula Sullivan

Tacoma Power residential customers would pay 5 percent more for electricity starting March 31 if the Tacoma City Council approves a proposed rate increase.

A 5 percent rate increase would mean that someone with an average monthly bill of $71 would be paying about $74.50 instead, said Tacoma Power Superintendent Steve Klein.

The council is scheduled to talk about the issue Tuesday and to vote a week later. The Tacoma Public Utilities board has already approved the increase.

The city-owned utility sets rates based on how much money it needs to cover its expenses, said Klein.

If it kept operating with the rates set two years ago, the utility would fall $24.9 million short of paying its bills, according to Tacoma Power figures.

There are several factors driving the increase, including the rising cost of employee health care and equipment expenses, but two factors make up more than half the problem.

The utility lost its largest electricity customer last year when the chemical company Pioneer Chlor Alkali closed its doors. Tacoma Power still hasn't recovered what it invested to deliver electricity to Pioneer and is stuck with about $16 million in "stranded costs."

Another $18 million of the rate increase would be used to pay for capital projects and equipment, Klein said.

Although rates are usually set for a two-year period, it's possible that power customers will see yet another increase -- as high as 8 percent -- in October.

Tacoma Power buys half of its power from the Bonneville Power Administration, a federal energy-marketing agency. Bonneville's finances are in a bind, and Klein said that agency has already indicated it would raise its prices by 25 percent in October.

A 25 percent BPA increase would roughly equal an 8 percent increase for Tacoma Power customers. Klein said Tacoma Power is trying to negotiate other options and said the increase from Bonneville might end up being less.

Even if rates were to go up by 13 percent, it would be a smaller increase than Tacoma Power customers have seen in the last few years.

During the energy crisis, Tacoma Power raised rates by 50 percent starting Dec. 20, 2000. That surcharge came off Sept. 30, 2001. On Oct. 1, 2001, the utility imposed a rate that was 32 percent higher than the pre-surcharge rate.

PSE seeks gas price increase

Seattle Post-Intelligencer, Mar. 6 2003.

Puget Sound Energy has asked for a 21 percent increase in its natural gas rates. The rate change, if regulators approve, would take effect in April.

The company said yesterday that high demand and a decreasing supply of gas have created a spike in its cost by 50 percent since the gas rate was last adjusted in September.

The company is allowed to pass along the fluctuation to its customers with demand cycles. The actual amount of the increase would be 13 cents per therm.

Last year, PSE's gas prices dropped three times for an overall 30 percent decrease. But that was after prices spiked during the energy crisis of 2001.

PSE serves 622,000 gas customers in parts of Snohomish, King, Pierce, Thurston, Lewis and Kittitas counties.

EIA's Rosy Gas Supply Projections in Doubt

NATURAL GAS WEEK • Mar. 10, by Andrew Kelly
US gas production may have peaked and be heading inevitably into decline in future years, even if high prices lead to increased drilling and construction of a pipeline to import gas from Alaska.

The US Energy Information Administration (EIA) sketched a reassuring picture of steady growth in domestic gas production through 2025 in its long-term forecast earlier this year. But energy analysts and consultants say the government agency's forecast appears to be excessively optimistic about the outlook for domestic supplies.

Lehman Brothers analyst Thomas Driscoll, among others, is not only skeptical about the forecast for future years, but believes official production data for the last few years have also overstated actual output.

"I'm pretty sure the production numbers are much worse than the EIA says," Driscoll told *Natural Gas Week*. He believes US production peaked in 1998 at 52.1 Bcf/d, fell to 48 Bcf/d last year and is set to fall to 44.3 Bcf/d by 2007. His numbers are based on his own survey of 45 companies that account for some 70% of US gas production.

"The data looks pretty compelling and it only points in one direction," he said.

In its new *Short-Term Outlook*, EIA is predicting 1.2% supply growth in 2003. Many analysts expect further declines in 2003. "Domestic production growth should accelerate in 2004 but, given recent experience, the extra effort might not result in increases above 2%," the agency noted.

EIA now claims gas supply fell 2.8% in 2002. Several months ago it maintained that deliverability was only down about 1% for the year, despite near-unanimity among industry analysts that declines were steeper.

While not making any claims of infallibility, EIA is standing behind its long-term projection of steady growth of 1.3%/year in domestic production to 73 Bcf/d by 2025. "The numbers that we are working with support our projections,"
EIA forecaster Ted McCallister said.

EIA, however, has not been working with a complete set of data recently due to collection problems at the Minerals Management Service (NGW Jan. 13,p1). This has forced the agency to estimate activity in the Gulf of Mexico, which may be the source of the discrepancy.

Nevertheless, a growing number of people believe the strong prices seen during much of the last three years indicate that North American gas production is getting close to its limits. Two-thirds of respondents in a survey held at the RBC Capital Markets energy conference in Houston late last year agreed that US gas production had peaked and is now in perpetual decline.

RBC analyst Joe Allman said 2001 — which saw a surge in drilling activity after a spike in prices — may well prove to be a peak year for domestic production because companies are facing diminishing returns as they chase smaller and smaller prospects. "You are getting less bang for your buck. For every well you drill, you're getting less gas," he said. Furthermore, the annual rate of decline in production from new US wells accelerated to 27% in 2002 from 17% in 1990, meaning that producers have to run faster just to keep output steady.

Analysts say another surge in drilling in response to the most recent spike in prices might not make much difference.

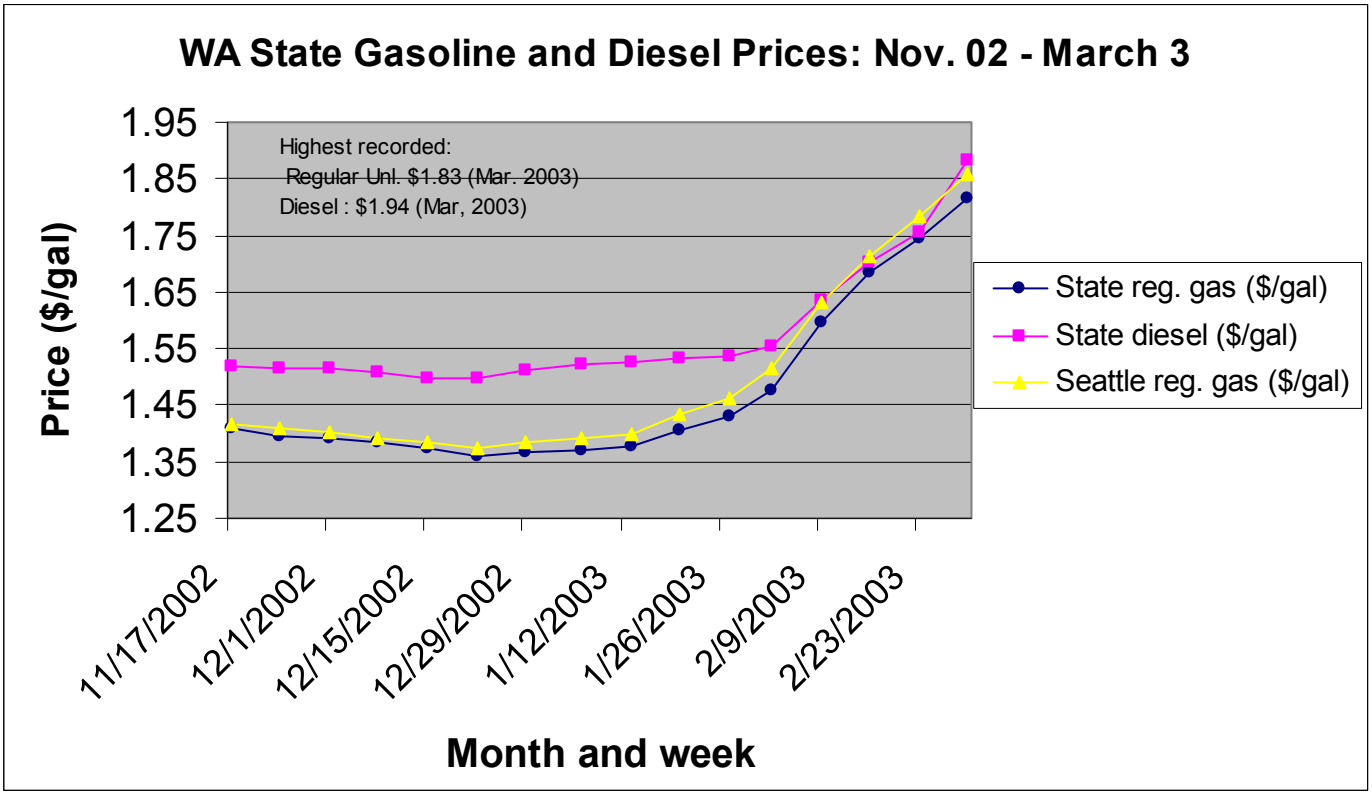
Despite a 30% increase in rigs drilling for gas in 2001, US gas production rose only 2% to 53.1 Bcf/d compared with the previous year, according to EIA.
Driscoll estimates output for 2001 at 50.8 Bcf/d — the equivalent of more than 800 Bcf less than EIA claims — and puts the rise over the previous year at 0.8%.

Even if US gas production does show some capacity for growth as EIA expects, it might never beat the record of 59.5 Bcf/d set in 1973, the "gas bubble" years when cheap regulated prices boosted demand.

Bob Lydecker, a consultant with IHS Energy, said domestic supplies will probably hit a ceiling in the next few years, even if production in the US Rockies continues to grow and gas from Alaska is brought to market in a timely fashion.

"Prices are going to have to stay up to keep anywhere close to being balanced and we'll have to bring in imported volumes to stay balanced five or 10 years out into the future," he said.

In 10 years time, the US could be importing up to 10 Bcf/d of liquefied natural gas, he said


WA State Gasoline and Diesel Prices: Nov. 02 - March 3
Highest recorded:
Regular Unl. $1.83 (Mar. 2003)
Diesel : $1.94 (Mar, 2003)
Price ($/gal)
1.95
1.85
1.75
1.65
1.55
1.45
1.35
1.25
11/17/2002
12/1/2002
12/15/2002
12/29/2002
1/12/2003
1/26/2003
2/9/2003
2/23/2003
Month and week
State reg. gas ($/gal)
State diesel ($/gal)
Seattle reg. gas ($/gal)

Tuesday March 18, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Monday, 3/17): 41,558 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

• Weekly Range at Mid-C:	$37.1-68.3 per MWh, Ave. = $47.3
• Approximate change from previous week	$-22 per MWh
• "Normal" price range, before 5/00	$20-$40 per MWh
• Petroleum, West Texas Intermediate:	$34.93 per barrel (year ago: $20.92)
• Seattle gasoline price (3/7)	$1.90 per gallon, see chart on pg. 6 (year ago $1.28)
• Natural gas, Sumas Hub:	$5.41 per million British Thermal Units (year ago $2.07)
• Approximate change from last week.	Oil: - $1.85 per barrel; Nat. gas: -$2.66 MMBtu

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - Energy Costs Buffet Local Economy (Puget Sound Business Journal Mar. 17)
  - Public speaks of power crunch pain (Bellingham Herald, Mar. 17)

4. River and Snowpack Information (Updated Mar 18, 2003)

- Observed March stream flow at The Dalles: 101% of average
- Observed February precipitation above the Dalles: 183% of average
- Observed 2003 snow pack as of Mar. 10: 74% of average
- The latest forecast of Columbia River stream flows this January through June is 77.9 million acre feet, 73 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Mar. 10, 2003)

- **State Agencies:** From January to December 2002 electrical usage was 7.6 % less and natural gas usage was 4.1% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Mar. 18)

- Federal reservoir system storage: 44% full: Precipitation Oct. – to date, 85% of normal.
- Estimated winter (2002/03) load loss probability of 1%

7. Power Exchanged: (Mar. 18)

- Average flow of power during the last 30 days

o California (exported to)	1473 MW
o Canada (exported to)	87 MW
o Net power export:	1560 MW

Energy Costs Buffet Local Economy

Puget Sound Business Journal, Mar. 17

Eighteen months ago, the Kimberly-Clark Corp. mill in Everett claimed the third-cheapest electricity bill among the company's 20 mills in 35 states. The low power bills pointed to a secure future for the mill's 900 employees.

But today, because of the unprecedented rise in the region's electricity prices, the Everett mill's electric bill has doubled in the past two years and is now the company's third highest.

"This is a real threat to our long-term viability in the region," said Dave Faddis, manager of the 76-year-old mill.

Once awash in cheap and abundant electricity, Washington has lost its historic advantage of having the cheapest electricity rates in the country.

A study completed last month by the state Office of Trade and Economic Development shows that in 1999, prior to the recent energy crisis, Washington had the cheapest residential and industrial electricity rates in the country. It also claimed the second-cheapest commercial rates.

By last year, about 20 states had lower commercial and industrial electricity prices than Washington. An estimated 7 states had lower residential rates.

Kentucky had the nation's cheapest residential, commercial and industrial electricity rates.

The unprecedented climb in regional electricity rates, along with a national spike in prices for natural gas and petroleum, mean energy prices in Washington have reached an all-time high.

In 1999, the state spent an estimated $10 billion on energy. This year the state's fuel bill is expected grow by $5 billion, according to the Office of Trade and Economic Development.

"We expect prices will remain relatively high for a good chunk of the year," said Tony Usibelli, assistant director of OTED.

"We don't see electrical prices coming down anytime soon. Natural gas prices will probably jump around some more. And the price of petroleum is going to depend on the war in Iraq, among other things," he said.

This week the average price for a gallon of gasoline reached an all-time high in Washington, at $1.84 a gallon, according to the American Automobile Association. Washington had the third-highest gas prices in the country, behind California and Oregon.

Meanwhile, natural gas prices surged 38 percent this week to their highest levels in more than two years. Earlier this month, Puget Sound Energy, the state's largest utility, asked state regulators to approve a 21 percent overall increase in natural gas rates.

The $5 billion increase in spending on energy is having an impact on the state's economy, but exactly how big of an impact is still being calculated, Usibelli said.

But it's likely that the extra $5 billion that state businesses will spend this year on electricity, natural gas and petroleum could be reducing the state's economic output by about 2 percent.

"That's $5 billion that was going to be invested in other things," Usibelli said.

While Washington businesses have always been affected by fluctuations of natural gas and petroleum prices, low electricity rates have been the state's hallmark.

Inexpensive hydroelectricity spawned the rise of the aluminum smelters, pulp-and-paper mills and food-processing plants in mostly rural communities around the state.

Now the aluminum industry is in its death throes, and the loss of the state's low-cost megawatts have raised concerns over the long-term viability of the pulp-and-paper and food-processing industries in Washington.

"We are very, very concerned about what this will do to the economy in Washington," said Ken Cannon, executive director of Industrial Customers of Northwest Utilities, a Portland-based lobbing group which represents 36 companies in the Northwest.

The already-historic prices that businesses are paying for electricity are likely to rise again this fall. The Bonneville Power Administration wants to raise the rates it charges utilities and its direct-service customers by 15 percent to help a meet a projected budget shortfall of $1.2 billion through 2006.

The proposed increase is being vigorously opposed by the state's 15 pulp-and-paper mills, which have already been stung by hikes in electricity prices.

"We have encouraged them (BPA) to take an aggressive approach to cost-cutting," Faddis said. "We can't pass these costs on to our customers."

A study completed by Weyerhaeuser Co. in September compared industrial electricity rates offered by 32 utilities in the United States and Canada where the company operates mills.

The cheapest electricity for large industrial customers was supplied by BC Hydro, based Vancouver, B.C., according to the Weyerhaeuser study. Next on the list were the Public Service Co. of Oklahoma, Kentucky Power, Louisville Gas & Electric and SaskPower, which serves Saskatchewan, Canada.

Tacoma Power had the cheapest industrial rates in the state, ranking 19 out of 32 utilities on the list. Other state utilities on the list included; Avista Corp. (21), Puget Sound Energy (23), Grays Harbor County PUD (25), Clark County PUD (26), Snohomish County PUD (29) and Seattle City Light (30).

BC Hydro also provided the cheapest prices to small industrial customers, or businesses that use 1,000 kilowatts during peak load times.

Again, Tacoma Power ranked the highest in the state on the list of 32, at 10th place. Clark County PUD was ranked 20th, followed by Avista Corp. (25), Seattle City Light (26), Puget Sound Energy (27), Grays Harbor County PUD (28) and Snohomish County PUD (30).

At the Kimberly-Clark mill in Everett, the electricity bill is expected to top $20 million this year, from $10 million in 2001, said Faddis.

"This is a very expensive region to do business in. From a tax standpoint it's a very expensive place, and labor costs are high," he said. "An advantage like low-cost electricity used to mean we could offset those costs, but that's no longer the case."

Public speaks of power crunch pain

ENERGY: Cantwell, federal official, meet with citizens to learn effects of the recent energy crisis.

EDMONDS - Business people and utility officials met with a member of the Federal Energy Regulatory Commission on Sunday at a confab arranged by Sen. Maria Cantwell to personalize the ongoing impact of the recent energy crunch.

The meeting wrapped up a whirlwind three-day regional tour with Cantwell for FERC member Bill Massey.

"It's been very valuable," Massey said. "People want to look you square in the eye and express their anger and outrage about out-of-control power prices that are still rippling through the Northwest economy and creating havoc."

Cantwell, D-Wash., is preparing legislation that would boost FERC's oversight of energy-market manipulation and press for use of its authority to offer consumer rebates and void contracts signed when prices skyrocket during critical energy shortages.

"Northwest utilities paid hundreds of millions of dollars in excess costs when FERC failed to act to stop energy trading scams executed by Enron and other companies during the Western energy crisis of 2001," said a news release from her office.

Cantwell said Sunday she wants to make sure "that FERC does its job of being a tough policeman for market manipulation, and making sure consumers and businesses in the Northwest are protected from that."

She plans to offer the bill this week.

Like most of those at Sunday's meeting, Massey - who had urged a stronger FERC role when energy-market manipulation in California began affecting power prices in the West - supports the legislation.

Cantwell said some Washington state residents have tried to get standing in California court cases on the abuses, only to be referred to the FERC - which under the Federal Power Act is authorized to step in "if rates are unjust and unreasonable."

"My legislation says, 'FERC, you must ... prevent mugging by these energy companies,'" she said.

Massey agreed.

"All this could have been prevented by the federal agency just doing its job," he said.

"This is electricity, not pork bellies," Massey said. "This will always be a commodity that cannot be subject to unfettered market forces."

FERC is expected to complete its 18-month investigation into the power crunch over the next few weeks.

For businesses here - and Snohomish County residents, whose power rates are the highest in the state - the crisis is far from over.

"We've seen rates go up about 80 percent since late 2001," said Dave Faddis, manager of the Kimberly-Clark paper mill, which employs 900 people and is county's second-biggest employer after Boeing.

And the BPA now is considering a cost-recovery adjustment that could push prices up an additional 15 percent, he said. If that occurs, "we will have seen power costs go up almost 100 percent in the past 18 months."

The Everett mill, whose power costs once were among the lowest of the company's 23 U.S. mills, now ranks third-highest, he said. While Dallas-based Kimberly-Clark says it's committed to the plant, which opened in 1927, the soaring costs are worrisome.

If it does not appear rates will "return to sanity," Faddis said, the company may have to consider other options - generating its own power, perhaps, "or do you go somewhere else? ... Cheap power has been a heritage of the Northwest for decades."

In Snohomish County, rates are up 53 percent from two years ago.

Some residents must choose between paying their electricity bill and buying a daughter's prom dress, said Cynthia First, one of three commissioners for the county's public utility district.

"We've had people returning Christmas presents to pay their bill," she said.

The power crunch hit the county in two ways, First said.

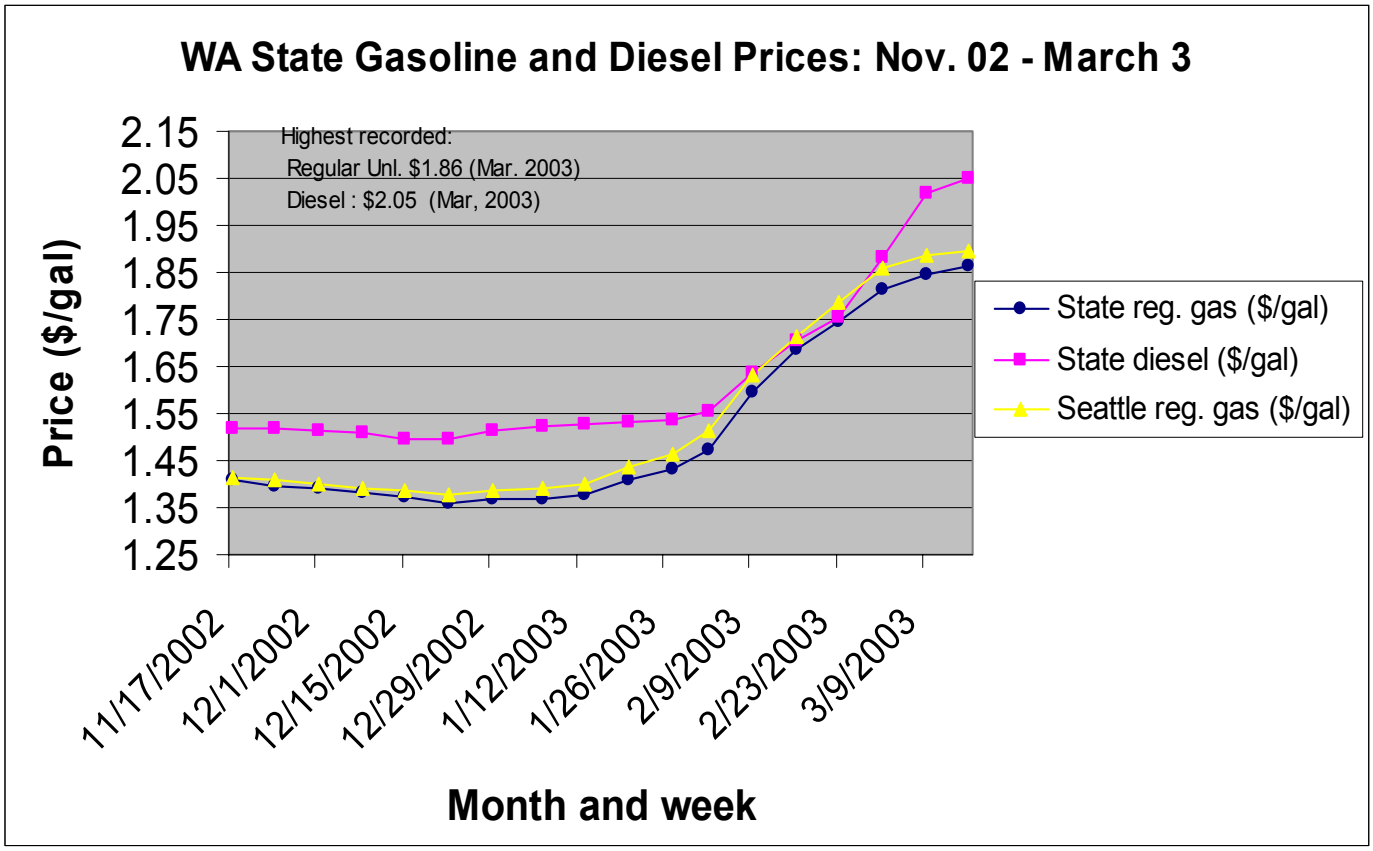
The PUD has contracts with Enron and other suppliers under fire now for their actions during the period, she said.

And then the Portland, Ore.-based Bonneville Power Administration, which markets power from the region's hydroelectric dams and other sources, "had to raise its rates after it was hit by market manipulators."

The utility district now is being sued for $116 million by Enron creditors in bankruptcy court, she noted. "They didn't even sue Ken Lay for that much. We think we have very strong defenses but it's still irritating."

Cantwell said her measure would allow BPA to renegotiate contracts negotiated at the overheated market's peak, a move that could generate savings of more than $800 million.

Also attending Sunday's roundtable were Steve Klein, superintendent for Tacoma Power, and Wayne Nelson, general manager of Clark County public utlities.



Tuesday March 25, 2003

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Monday, 3/24): 41,771 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

• Weekly Range at Mid-C:	$36.0 – 45.6 per MWh, Ave. = $41.5
• Approximate change from previous week	$-5.8 per MWh
• "Normal" price range, before 5/00	$20-$40 per MWh
• Petroleum, West Texas Intermediate:	$28.66 per barrel (year ago: $24.47)
• Seattle gasoline price (3/24)	$1.89 per gallon, see chart on pg. 6 (year ago $1.35)
• Natural gas, Sumas Hub:	$4.60 per million British Thermal Units (year ago $2.79)
• Approximate change from last week.	Oil: - $6.27 per barrel; Nat. gas: -$0.81 MMBtu

3. California Electricity Situation

- CA ISO Alert Status
  - A stage 2 alert was declared on July 10, 2002.
  - Restricted maintenance warning declared, Sept. 23, 2001
  - Most recent rotating blackouts: Tuesday, May 8, 2001

- Energy News Headlines from California and the Nation
  - El Paso denies price plot (Sacramento Bee, Mar. 22)
  - The taming of the crude (The Olympian, Mar. 23)
  - Rate hike may be last straw fro smelters (Puget Sound Business Journal, Mar. 17)

4. River and Snowpack Information (Updated Mar 25, 2003)

- Observed March stream flow at The Dalles: 113% of average
- Observed February precipitation above the Dalles: 188% of average
- Observed 2003 snow pack as of Mar. 10: 74% of average
- The latest forecast of Columbia River stream flows this January through June is 77.9 million acre feet, 73 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Mar. 10, 2003)

- **State Agencies:** From January to December 2002 electrical usage was 7.6 % less and natural gas usage was 4.1% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Mar. 18)

- Federal reservoir system storage: 44% full: Precipitation Oct. – to date, 85% of normal.
- Estimated winter (2002/03) load loss probability of 1%

7. Power Exchanged: (Mar. 18)

- Average flow of power during the last 30 days
  - California (exported to) 1473 MW
  - Canada (exported to) 87 MW
  - Net power export: 1560 MW

El Paso denies price plot

***By Dale Kasler* -- March 22, 2003**

Explaining its $1.7 billion settlement over the California energy crisis, El Paso Corp. insisted Friday it didn't rig natural gas prices but said the settlement was necessary to move on with its business.

"Getting these issues behind us ... has been our top priority," said the Houston-based energy company's acting chairman and chief executive, Ronald Kuehn Jr. He called the payout "objectionable" but necessary as the troubled company tries to cut costs and sell off assets.

The pending litigation with the state of California and others had put a cloud over the company that hurt the company's efforts, he said in a conference call with industry analysts.

Like other energy companies that were riding high in 2000 and 2001, El Paso is burdened by a low stock price and other woes after the collapse of the energy markets.

The company said the settlement contains no admission of wrongdoing.

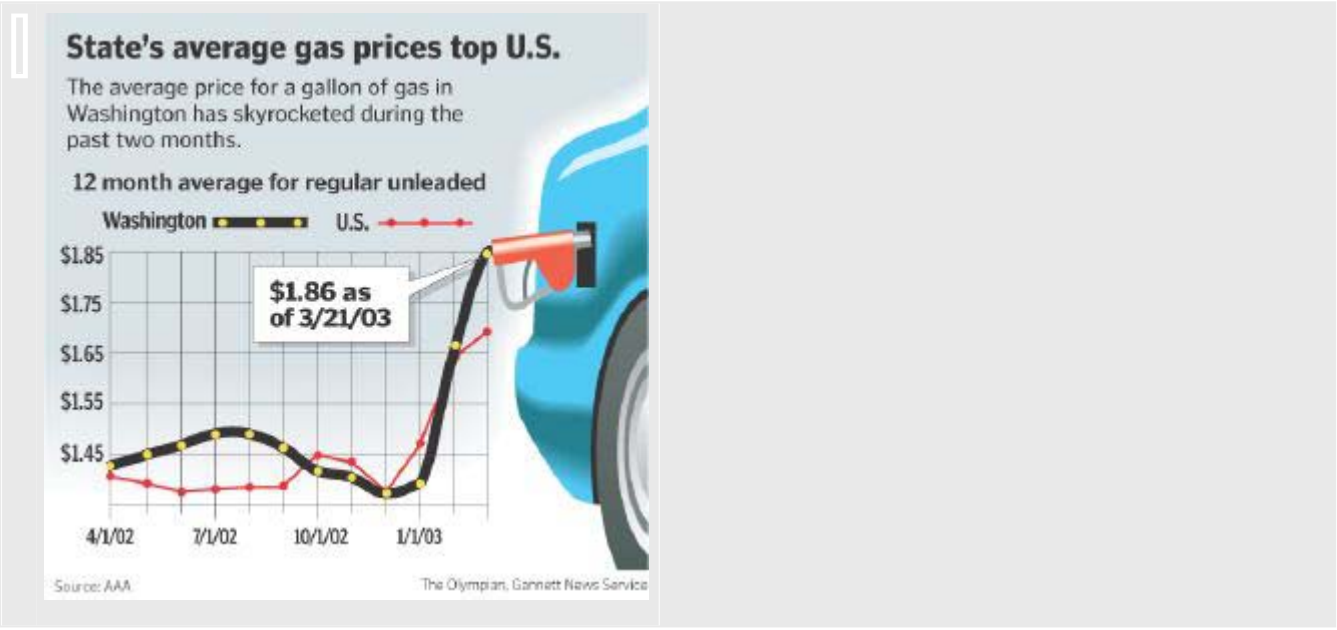
State officials had accused El Paso of withholding natural gas during the energy crisis, leading to a cost of $3.7 billion in higher prices both for gas and electricity. Much of California's electricity is produced at gas-fired plants.

In announcing the $1.7 billion settlement Thursday, state Attorney General Bill Lockyer said El Paso participated in a "multibillion-dollar ripoff."

El Paso said the settlement will lead to a $650 million charge against earnings, to be recorded in the fourth quarter of last year. The quarter's results will be announced later this month.

The Taming of the Crude

Despite soaring gas prices, oil supply never in jeopardy



THE OLYMPIAN , Chris Clough

The buildup to the attack on Iraq wreaked havoc on world oil markets for weeks; fears of wide-scale fires at Iraqi oil wells had those markets even more anxious Thursday.

But as U.S. troops marched toward Baghdad and secured key oil reserves in Iraq, contracts for U.S. light, sweet crude for May delivery dropped $1.27 to $26.85 in trading in New York on Friday.

Closer to home, the price at the pump hit a record high Wednesday of $1.83 for a gallon of regular in South Sound, including 18.4 cents in federal taxes and 23 cents in state taxes. The price was down fractionally Friday.

But through it all, the supply of crude oil to refineries that serve Western Washington has never been in jeopardy.

"About 85 percent of our crude is shipped in from Alaska," said Tim Hamilton, executive director of Olympia-based Automotive United Trades Organization, a nonprofit group that represents gas stations. "The rest is piped in from Canada or shipped from Southeast Asia, particularly Borneo. There's no Mideast oil in our refineries."

Stable demand not enough

With stable customer demand for gasoline and local sources of crude oil, what helped to drive up prices at the pump?

-A run in the global market price of crude to the $40 dollar a barrel range, which put pressure on gas prices nationwide.

-A decrease in gasoline inventories last fall at West Coast refineries, including Western Washington's, which was exacerbated by the export of locally refined gas to other markets.

Anita Mangels of the Western States Petroleum Association, which advocates for oil industry members,

was quick to point out that gasoline is a global commodity.

"In the petroleum market, where refineries are located relative to any local market is not relevant," Mangles said. "Washington refineries sell outside the state, which is typical because there's not a refinery in every state. Gas prices need to be taken in the context of a global, not local, market."

There are five refineries in Washington -- BP in Cherry Point, Tesoro and Shell in Anacortes, ConocoPhillips in Ferndale and U.S. Oil & Refining Co. in Tacoma. The Tacoma refinery primarily produces jet fuel.

The refineries are able to pump out about 618,000 barrels a day, making Washington state a net exporter of refined petroleum -- shipping or piping gasoline to Oregon, California, Canada and overseas.

Volatility at the pump

While the supply of crude oil has been stable, prices motorists pay at the pump have been volatile.

"Prices really ramped up in the weeks before the war," said Janet Ray with AAA in Washington state.

The market has since calmed.

"Pricewise, we've been relatively stable the past five days with negligible increase," Ray said. "In a couple of situations there have been minor price decreases."

State gasoline prices, which averaged $1.86 for a gallon of regular on Friday, are expected to remain steady.

"Nationwide and here in Washington, we expect there to be adequate inventory of gas and diesel in the near term if people purchase fuel as usual."

A barrel of crude oil is 42 gallons, up to 85 percent of which can be refined into gasoline -- depending on the particular refinery and how it is set up. The remaining crude is refined into diesel, heating oil and other petroleum products.

"That's what makes it so tricky," Ray said. "Oil is pumped out of the ground, then the refinery has to decide how much gas, heating oil, diesel and jet fuel to produce.

"Then among the gas they have to decide if they want it to meet California standards for reformulated gas and so on. They have to weigh local markets and other markets."

'Competitive insulation'

Hamilton said the idea of local producers is a misnomer.

"There are no Washington refineries, no local management of refineries," he said. "They are all owned by international companies that make decisions on a much larger scope.

"The problem with our local producers and the competition among West Coast refineries is that they are owned by the same few companies," Hamilton said. "There's competitive insulation."

In Washington, Hamilton said, Alaska crude oil is shipped in smaller tankers to the refineries. The crude is then refined into gasoline and other petroleum products.

The gasoline is then sent through the Olympic pipeline to Northwest distribution hubs from Anacortes to Oregon or barged to Harbor Island in Seattle.

The base gasoline, known as mogas, is then loaded from common tanks into trucks and transported to individual gas stations.

The chains such as Chevron, BP and Tesoro add their brand additives to the trucker tanks.

"The base gasoline has to meet federal regulations and quality standards," Ray said. "Then each load is topped with a drop, drop of each station's mixture, whether it's Shell or Chevron or whatever. There are some differences, but they are very minor."

The oil industry asserts that the price at the pump is a matter of supply and demand.

The demand side of the equation in Western Washington has remained stable, even as prices hit record highs.

It's the supply side -- dependent on the market price of crude and local inventories -- that has helped to force price run-ups in Western Washington.

Market price

For vertically integrated companies such as BP -- which pumps crude out of the ground in Alaska, refines it in Cherry Point and sells it through its own retailers -- the market price of crude is not as much of a factor.

"Those companies don't pay more for the raw materials, production or transportation," Hamilton said. "All of the increase in price is pure profit."

"As a full producer you have the opportunity cost to sell or refine the crude," said Mark Anderson, senior energy policy specialist in the energy policy division of the state Department of Community, Trade and Economic Development. "The cost of your oil didn't go up any because you are a producer. It allows you to make different decisions."

Mike Abendhoff, director of public affairs at the BP refinery in Cherry Point, said he could not discuss production numbers or cost structures at the plant.

"I can tell you we have been running at full steam all year and well into last year," he said Friday. "When you look at the economics of refining, we need to be running."

Overall, Hamilton said West Coast refineries curtailed production in the fall.

"Prices were favorable to the consumers and unfavorable for the companies," he said. "They dried up the inventory by producing less; then there was the strike in Venezuela and bad storms in the Northeast."

Hamilton said the refineries usually build up reserves in the winter to help meet increased demand when people drive more in the spring and summer.

This year, that's not the case.

"The refineries are running us on empty, the West Coast inventory of refined petroleum is at the lowest level in decades."

"It's not a crude problem, it's an inventory and production problem brought on by the refineries. They are exporting our gas out of Washington to California, Canada, South America, Japan and Korea," Hamilton said.

Monitoring inventories

The state of Washington monitors petroleum inventories.

Anderson said there's no reason to be overly concerned.

The state has a four-level plan to deal with a shortage.

Any action at this point would most likely be a public information campaign, Anderson said.

"The gist of the public information would be primarily to inform the public about the sufficiency of oil so they don't rush to the stations to top off their tanks," he said.

Anderson said the latest numbers show that there is a 12- to 15-day supply of petroleum at state refineries.

"That's an aggregate number combining crude and refined products," he said.

Anderson also said there is no firm inventory threshold at which the state would put its plans into action.

"We work with this on a dynamic basis," Anderson said. "It depends on what's going on in the market. For example, if the refineries say the inventory is low because they are waiting for the president to release the strategic oil reserves, we have to weigh whether that's a reasonable comment."

In the past months, refineries have boosted production.

Hamilton said it could be too late.

"If there are any disruptions whatsoever in the refineries, such as fires this summer, we could see spikes at the pump," he said. "A little burp could send prices up another dollar a gallon or more."

The possibility of higher prices has some customers watching their wallets.

"The last time I filled my tank all the way thinking prices would go up," said Debbie Osborne, 28, of Tumwater. "Today, I'm just putting in five bucks because I have a feeling they'll go down soon. But who knows."

Rate hike may be the last straw for smelters

Steve Wilhelm Staff Writer

The beleaguered Bonneville Power Administration's plan to raise power rates about 15 percent could snuff out the few remaining embers of Washington's aluminum-smelting industry.

Of the seven aluminum smelters in the state, only two are running, and those only at stunted production rates. Alcoa Inc.'s Intalco plant in Ferndale is operating just two of its three aluminum-smelting potlines, while Golden Northwest Aluminum Inc. is operating just a few pots at its plant in Goldendale.

Washington's aluminum industry is being squeezed between the region's rising power rates, slack global demand for aluminum, and proliferating low-cost aluminum smelters around the world. While just a few decades ago the Northwest, fed by BPA's seemingly endless supply of low-cost power, was one of the world's top producers of aluminum, now the state's plants are facing electricity rates too high to profitably make aluminum.

"The price increase proposed by BPA would make it virtually impossible to operate aluminum smelters in the Pacific Northwest," said Jake Siewert, vice president for Alcoa in New York. "The rate that they have proposed is higher than any other power price than we pay anywhere else in the world, and makes those plants globally noncompetitive."

While Alcoa is cutting back its presence here, the company plans to invest $1 billion in a smelter in Quebec City, Canada, to double its capacity. As an incentive the company will get preferential rates for the region's cheap hydropower, and an interest-free government loan.

"They are offering us a very competitive power price, substantially below what is being charged by BPA," Siewert said.

Golden Northwest Aluminum CEO Brett Wilcox said his company is already paying about $38 a megawatt hour, including $3 for transportation. The proposed boost would put it above $40, he said.

"The rate already is way too high, as compared to power rates that aluminum smelters in other parts of the world face. The future increase makes it something that's unworkable," Wilcox said.

The company laid off 93 workers on Feb. 28, leaving about 140 in Goldendale, said Bob Hughes, a state Department of Employment Security official. The Goldendale plant employed about 720 when at full production.

BPA officials say they're being forced to raise rates to cope with the tremendous losses the utility incurred during the energy crisis of 2000, and with reduced power generation potential of the low snowpack.

In a Feb. 7 letter, BPA CEO Stephen Wright said the utility entered the 2003 fiscal year with just $200 million in reserves, which will be swiftly depleted at current projections. While the proposed 15 percent rate increase is scheduled for Oct. 1, BPA officials are negotiating with users to see if the increase can be reduced.

"I am painfully aware of the impact that a rate increase would have on the people and businesses of the Northwest," Wright said. "We would not take this action if there were any other alternative."

Most of the new smelters popping up around the world are being built in areas of abundant hydropower or geothermal power, including Canada, Brazil, Iceland and some parts of Africa. A relatively new competitor is China, which has been flooding the market with low-cost aluminum produced from smelters powered by coal-fired power plants.

"All of a sudden it (China) has become a very large producer of aluminum, much to everyone's surprise, and exceeded projections very quickly," said Wilcox said.

The global, inflation-adjusted price for aluminum has drifted downward for the last two decades at about 0.8 percent annually. The slowed global economy and new smelting capacity being created around the world are contributing to the decline, said Terry Morlan, manager of economic analysis for the Northwest Power Planning Council in Portland.

Morlan said the slumping value of aluminum means that of the nine Northwest aluminum smelters, only the Ferndale Intalco plant can run profitably with electricity rates substantial over $30 per megawatt hour. That plant, built in 1969, is one of the newest and most efficient in the region.

"The others, if they were able to work some special contracts for electricity, or if they invested a significant amount of money in trying to improve the efficiency of the plant, they might be able to hang on," he said.

Already past revival is the former Kaiser Aluminum Corp. plant in Tacoma, which has been purchased by the Port of Tacoma and will be demolished to make way for growing container traffic. Houston-based Kaiser's other smelter near Spokane is closed, while the company itself is in Chapter 11 bankruptcy.

On March 4, Longview Aluminum LLC also filed for Chapter 11 bankruptcy protection, after BPA announced plans to cut off Longview's power because the company had millions in unpaid power bills. That plant is not operating, and only a few of its former 1,000 workers are employed there.

Golden Northwest Aluminum's Wilcox said his Goldendale smelter's only hope of survival may be to build its own gas-fired generating plant, in collaboration with BPA.

"We are fighting hard to survive. We are trying to develop our own independent power projects for a long-term energy supply," he said. "If we can achieve that, we believe we can be viable long term."